

**Commonwealth of Kentucky  
Environmental and Public Protection Cabinet  
Department for Environmental Protection  
Division for Air Quality  
803 Schenkel Lane  
Frankfort, Kentucky 40601  
(502) 573-3382**

**Proposed**

**AIR QUALITY PERMIT  
Issued under 401 KAR 52:020**

**Permittee Name:** Arkema, Inc.

**Mailing Address:** 2316 Highland Avenue, Carrollton, KY 41008

**Source Name:** Arkema, Inc.  
**Mailing Address:** 2316 Highland Avenue, Carrollton, KY 41008

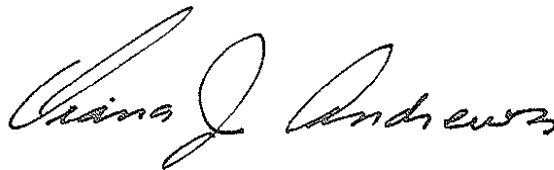
**Source Location:** 2316 Highland Ave (US Hwy 42), Carrollton, KY

**Permit Number:** V-04-044  
**Source A. I. #:** 690  
**Activity #:** APE20040002  
**Review Type:** Title V  
**Source ID #:** 21-041-00002

**Regional Office:** Florence Regional Office  
8200 Veterans Memorial Drive, Suite 110  
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**County:** Carroll

**Application**  
**Complete Date:** May 26, 2000  
**Issuance Date:** February 10, 2006  
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**John S. Lyons, Director  
Division for Air Quality**

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### ATTACHMENTS:

Attachment A (Consent Decree issued August 5, 2002, by the United States District Court for the Eastern District of Pennsylvania between USEPA and Atofina Chemicals, Incorporated)  
Attachment B (First Amendment to Consent Decree, entered August 16, 2004)

The following table provides a list of regulations currently not applicable for this facility, with the relevant explanation for non-applicability:

Regulation	Title	Notes
Standards of Performance for New Stationary Sources		
40 CFR 60 Subpart K	<a href="#">Storage Vessels for Petroleum Liquids (9/11/73 to 5/18/78)</a>	Arkema does not use any petroleum liquid storage vessels > 40,000 gals.
40 CFR 60 Subpart K-a	<a href="#">Storage Vessels for Petroleum Liquids (5/18/78 to 7/23/84)</a>	
40 CFR 60 Subpart VV	<a href="#">Equipment Leaks of VOC in SOCMI</a>	This subpart applies to facilities that produce SOCMI chemicals as intermediate or final products. Arkema only generates benzene as a waste.
40 CFR 60 Subpart III	<a href="#">VOC Emissions from the SOCMI Air Oxidation Unit Processes</a>	Arkema does not produce any SOCMI chemicals as <i>products</i> . Benzene is generated as a waste and does not meet the definition of <i>product</i> or <i>by-product</i> as defined in 40 CFR 60.611.
40 CFR 60 Subpart NNN	<a href="#">VOC Emissions from SOCMI Distillation Operations</a>	
40 CFR 60 Subpart RRR	<a href="#">VOC Emissions from SOCMI Reactor Processes</a>	
National Emission Standards for Hazardous Air Pollutants		
40 CFR 61 Subpart C	Standards for Beryllium	Arkema does not process beryllium, beryllium ore, oxides, alloys, or wastes nor does Arkema accept wastes to be burned from any of the Subpart E covered processes.
40 CFR 61 Subpart FF	Benzene Waste Operations	This subpart applies to hazardous waste treatment, storage, and disposal facilities that treat benzene waste from chemical manufacturing plants > 10 Mg/yr. Benzene waste treatment at Arkema is < 10 Mg/yr.
National Emission Standards for Hazardous Air Pollutants for Source Categories (MACT)		
40 CFR 63 Subpart F	HON from SOCMI	Per 40 CFR 63.107(b), gas streams from processes at this facility do not originate as a continuous flow from air oxidation reactors, distillation units, or reactors during operation of the chemical manufacturing process units.
40 CFR 63 Subpart G	HON from SOCMI for Process Vents, Storage Vessels, Transfer Operations, and Wastewater	
40 CFR 63 Subpart H	HON for Equipment Leaks	
40 CFR 63 Subpart I	HON for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks	
40 CFR 63 Subpart MMM	Pesticide Active Ingredient Production NESHAP	With the issuance of this Title V Permit, Arkema will be a synthetic minor source for HAPs and therefore, Exempt from the MACT standards.
40 CFR 63 Subpart FFFF	Miscellaneous Organic NESHAP	
40 CFR 63 Subpart EEEE	Organic Liquid Distribution NESHAP	
40 CFR 63 Subpart ZZZZ	Reciprocating Internal Combustion Engine MACT	
40 CFR 63 Subpart GGGGG	Site Remediation NESHAP	
40 CFR 63 Subpart DDDDD	Boiler and Process Heater NESHAP	

The following table provides a list of regulations currently not applicable to specific emission points at the plant, with the relevant explanation for non-applicability:

Regulation	Title	Notes
<i>Process Area B-02</i>		
40 CFR 60 Subpart D-c	Small Steam Generating Units	Emission points 01, 02, and 03 (Boilers #4, #5, and #7 respectively) were installed prior to 6/9/89.
<i>Process Area B-17</i>		
40 CFR 60 Subpart K-b	<a href="#">Storage Vessels for Petroleum Liquids (after 7/23/84)</a>	Process Area B-17 does not have any tanks > 75 m <sup>3</sup> storing volatile organic liquids with a maximum true vapor pressure > 15.0 kPa.
<i>Process Areas B-06, B-33, and B-39</i>		
40 CFR 51.166 Subpart I	Prevention of Significant Deterioration of Air Quality	Potential emissions from these three areas are less than the major source thresholds established by these regulations.
401 KAR 51:017	Prevention of Significant Deterioration of Air Quality	
401 KAR 61:060	Existing Sources Using Organic Solvents.	Because these units have been repermited as new emission units with the issuance of this Title V Permit, they are not considered <i>existing</i> sources.

**SECTION A - PERMIT AUTHORIZATION**

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction/operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### BOILERS AREA B-02

Emission Point(s)	Process ID (Installation Date)	Process Description
01	#4 Boiler, 70.0 mmBtu/hr, nat. gas/no. 2 oil/no. 4 oil-fired (1967)	Indirect heat exchanger
02	#5 Boiler, 25.1 mmBtu/hr, nat. gas/no. 2 oil/no. 4 oil-fired (1969)	
03	#7 Boiler, 26.8 mmBtu/hr, nat. gas/no. 2 oil/no. 4 oil-fired (1977)	
04	#3 Boiler, 25.1 mmBtu/hr, nat. gas/no. 2 oil/no. 4 oil-fired (1991)	

**Control Equipment:** None

### **APPLICABLE REGULATIONS:**

- 401 KAR 59:015, *New indirect heat exchangers*, which applies to indirect heat exchangers with a capacity of more than one (1) million Btu per hour but less than or equal to 250 million Btu per hour constructed on or after April 9, 1972 (EP 03 and 04).
- 401 KAR 61:015, *Existing indirect heat exchangers*, which applies to indirect heat exchangers with a capacity of more than one (1) million Btu per hour but less than or equal to 250 million Btu per hour constructed before April 9, 1972 (EP 01 and 02).
- 401 KAR 60:005, Section 3(e), incorporating by reference 40 CFR 60.40c to 60.48c (Subpart Dc), *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* (EP 04 only).

### **1. Operating Limitations:**

To preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality, for significant emissions increase of sulfur dioxide, combined consumption of #2 and #4 fuel oils for Emission Point 04 shall not exceed 1,015,000 gallons per year.

### **Compliance Demonstration Method:**

The permittee shall demonstrate compliance with the fuel oil usage limitations by maintaining records of each fuel oil combusted on a monthly basis in accordance with Subsection 5 (below). Compliance with the annual limits shall be based on the rolling 12 month total. Within 30 days following the conclusion of each month, the rolling 12-month total shall be calculated for the preceding 12 months.

### **2. Emission Limitations:**

- a. Pursuant to 401 KAR 61:015, Section 4(1) and Section 5(1) emissions of particulate matter and sulfur dioxide from Emission Points 01 and 02 shall not exceed the following limitations:

Particulate matter: 0.293 lb/mmBtu  
Sulfur dioxide: 0.971 lb/mmBtu

- b. Pursuant to 401 KAR 61:015, Section 4(2), the opacity of visible emissions from Emission Points 01 and 02 shall not exceed twenty (20) percent.

**SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS**

- c. Pursuant to 401 KAR 59:015, Section 4(1) and Section 5(1) emissions of particulate matter and sulfur dioxide from Emission Points 03 and 04 shall not exceed the following limitations:

Particulate matter:

Emission Pt. 03: 0.292 lb/mmBtu

Emission Pt. 04: 0.295 lb/mmBtu (greater than EP03 because three 12 mmBtu/hr IHEs removed in 1979)

Sulfur dioxide:

Emission Pt. 03: 0.981 lb/mmBtu

- d. Pursuant to 401 KAR 59:015, Section 4(2), the opacity of visible emissions from Emission Points 03 and 04 shall not exceed twenty (20) percent as prescribed by 40 CFR 60, Appendix A, Method 9.
- e. Pursuant to 40 CFR 60.42c(d), sulfur dioxide emissions from Emission Point 04 shall not exceed 0.50 lb/mmBtu heat input, or as an alternative, the permittee shall not combust oil in Emission Point 04 that contains greater than 0.50 weight percent sulfur.
- f. To preclude the applicability of 40 CFR 51, Regional Haze Regulations and Guidelines for Best Available Retrofit Technology (BART) Determinations, combined Sulfur Dioxide emission for Emission Points 01, 02, and 03 from the consumption of #2 and #4 fuel oils shall not exceed 200 tons per year. Should such emissions ever exceed 250 tons per year for the specified boilers, then the provisions of 40 CFR 51 will apply for those units.

***Compliance Demonstration Method:***

For each boiler, compliance is demonstrated with the sulfur dioxide and particulate emission limitations and the visible emissions (opacity) limitation as long as natural gas is the fuel burned. When fuel oil is burned, refer to Section D, Opacity Monitoring of Emission Point.

The permittee shall assure compliance with the particulate matter emission limitations when burning fuel oil for Emission Points 01, 02, 03, and 04 by calculating the actual particulate emission rates using the following equations:

For #2 fuel oil, Particulate matter emission rate (lbs/million Btu) =  $0.002/H$

Where:  $H$  = heat content of liquid fuel, million Btu per gallon

For #4 fuel oil, Particulate matter emission rate (lbs/million Btu) =  $0.007/H$

Where:  $H$  = heat content of liquid fuel, million Btu per gallon

The permittee shall assure compliance with the sulfur dioxide emission limitations when burning fuel oil for Emission Points 01, 02, 03, and 04 by calculating the actual sulfur dioxide emission rates using fuel oil analysis data and the following equations:

For #2 fuel oil, Sulfur dioxide emission rate (lbs/million Btu) =  $14.2(S/H)$

Where:  $H$  = heat content of liquid fuel, million Btu per gallon  
 $S$  = decimal fraction of sulfur in liquid fuel

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For #4 fuel oil, Sulfur dioxide emission rate (lbs/million Btu) =  $15.0(S/H)$

Where: H = heat content of liquid fuel, million Btu per gallon  
S = decimal fraction of sulfur in liquid fuel

The permittee shall demonstrate compliance with the weight percent sulfur limitation for Emission Point 04 by recording the sulfur content of each shipment of fuel oil from vendor certification or analysis of fuel, as referenced in Subsection 4 (below).

The permittee shall assure compliance with the sulfur dioxide emission limitations when burning fuel oil for Emission Points 01, 02, and 03 by calculating the actual sulfur dioxide emissions using fuel oil analysis data and the following equations:

For #2 and #4 fuel oils, Sulfur dioxide emission rate (tons/yr) =  $[(C_2 * 142 * S) + (C_4 * 150 * S)] / 2000$

Where: C<sub>2</sub> = consumption of #2 fuel oil, thousand gallons  
C<sub>4</sub> = consumption of #4 fuel oil, thousand gallons  
S = % weight of sulfur in fuel oil multiplied as the given value

Compliance with the annual limit shall be based on the rolling 12 month total. Within 30 days following the conclusion of each month, the rolling 12-month total shall be calculated for the preceding 12 months.

**3. Testing Requirements:**

Pursuant to 40 CFR 60.44c, performance testing in accordance with EPA Reference Method 19 (or equivalent), as referenced in 401 KAR 50:015, Section 1, shall be conducted as required by the Division. Refer to Section G(d)7.

**4. Specific Monitoring Requirements:**

- a. Refer to Section D., Opacity Monitoring of Emission Point.
- b. Pursuant to 40 CFR 60.46c(e), the permittee shall monitor the sulfur content of the fuel oil combusted in Emission Point 04 by maintaining fuel supplier certifications in accordance with 40 CFR 60.48c(f) or by fuel sampling in accordance with 40 CFR 60.46c(d)(2) and Subsection 5, Specific Recordkeeping Requirements, below.
- c. The permittee shall monitor the sulfur content of the fuel oil combusted in Emission Points 01, 02, and 03 by maintaining fuel supplier certifications or by fuel sampling in accordance with Subsection 5, Specific Recordkeeping Requirements (below).

**5. Specific Recordkeeping Requirements:**

- a. The permittee shall record and maintain records of the following information and shall provide them to the Division upon request:
  - i. For fuel oil burned:
    - Average sulfur content, percent by weight.
    - Average higher heating, Btu per gallon.
    - Calculated sulfur dioxide emission rate, lbs/mmBtu.
    - Fuel supplier certifications pursuant to 40 CFR 60.48c(f) or analysis pursuant to 40 CFR 60.46c(d).
  - ii. Monthly amount of each type of fuel oil combusted at each emission point, in gallons.
- b. Refer to Section F.2 regarding retention time of records.



## **SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS**

**6. Specific Reporting Requirements:**

The permittee shall submit semiannual reports in accordance with 40 CFR 60.48c(d) & (e). The reports shall include records of fuel supplier certifications and a signed statement by the permittee that the records of fuel supplier certifications submitted that period represent all of the fuel combusted during that period by emission point or, alternatively, records showing the rolling average sulfur content in accordance with 40 CFR 60.48c(e)(11).

**7. Specific Control Equipment Operating Conditions:** None

**8. Alternate Operating Scenarios:** None

**9. Compliance Schedule:** None

**10. Compliance Certification Requirements:**

Refer to Section F.9.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### PRODUCTION AREA B-3

Emission Point(s)	Process ID (Installation Date)	Process Description
05 (DR03)	Patterson dryer, DR-0301 (1962)	Product drying
	Abbe Dryer, DR-0302	
06 (DT03)	Drum/tote loading and unloading	Material handling
07 (FS03)	Portable Sweep Screener	Material handling
08 (PF03)	50 gal. Niagara Filter, FI-0314	Product filtering
	50 gal. Aslope Box Filter, FI-0315	
	Niagara Filter, FI-0322	
09 (RC03)	180 gal. Dryer Surge Tank, TK-0301 (1987)	Product/material receiving
	180 gal. Dryer Surge Tank, TK-0302 (1984)	
	300 gal. Salt Tank, TK -0304 (1957)	
	1,000 gal. #3 Vacuum Receiver, TK-0318	
	1,000 gal. #2 Vacuum Receiver, TK-0317 (1989)	
	1,000 gal. #4/5 Vacuum Receiver, TK-0319 (1989)	
	1,000 gal. #6 Vacuum Receiver, TK-0322 (1995)	
	750 gal. #1 Receiver / Weigh Tank, WT-0324 (1957)	
10 (RX03)	1,500 gal. #1 Reactor, RX-0316 (1969)	Chemical reaction
	1,500 gal. #2 Reactor, RX-0317	
	1,500 gal. #3 Reactor, RX-0318 (1993)	
	1,500 gal. #4 Reactor, RX-0319 (1996)	
	1,500 gal. #5 Reactor, RX-0321 (1979)	
	3,000 gal. #6 Reactor, RX-0322 (1996)	
11 (TE03)	Pipeline/Transport Equipment	Pumps, pipes, valves, etc.
12 (EF03)	Flakier pan, tote bin, vacuum stripper, filter	Mallet production
13 (ST03)	5,000 gal. 2-MET Storage Tank, TK-0329	Material storage
14 (WW03)	Wastewater Treatment Operations	Wastewater treatment

**SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS****PRODUCTION AREA B-03**

**Control Equipment:** Thermal Oxidizer and scrubber (IR-7401) and Caustic Scrubber (TK-0356). Refer to Subsection 7 (below).

**APPLICABLE REGULATIONS:**

Consent Decree between United States of America and ATOFINA Chemicals, Inc. and its subsequent amendment.

401 KAR 59:010, *New process operations*, applies to emission points constructed on or after July 2, 1975.

401 KAR 61:060, *Existing sources using organic solvents*

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

**1. Operating Limitations:**

- a. Pursuant to 401 KAR 63:020, Section 3, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.
- b. Refer to Section E regarding the use of the thermal oxidizer (IR-7401).

***Compliance Demonstration Method:***

- a. For compliance with 401 KAR 63:020, refer to Section D.
- b. Refer to Section E for the compliance demonstration method for operation of IR-7401.

**2. Emission Limitations:**

- a. Refer to Section D for potentially hazardous matter or toxic substance limitations and to Subsections B.4 and B.5 (below) for recordkeeping and monitoring requirements.
- b. Pursuant to 401 KAR 59:010, emissions of particulate matter (PM) for emission point 05 shall not exceed the allowable rate limit as calculated by the following equations:

For process weight rates up to 1,000 lbs/hr:

$$E = 2.34 \text{ lbs/hr}$$

For process rates greater than 1,000 lbs/hr up to 60,000 lbs/hr:

$$E = 3.59P^{0.62}$$

For the equation:

E = rate of emissions in lb/hr, and  
P = process weight rate in tons/hr.

- c. Pursuant to 401 KAR 59:010, Section 3(1), the opacity of visible emissions from each emission point listed shall not equal or exceed twenty (20) percent as prescribed by 40 CFR 60, Appendix A, Method 9. Refer to Section D.
- d. Pursuant to 401 KAR 61:060 Section 3(1), affected facilities using organic solvents shall not discharge more than 40 pounds per day or 8 pounds per hour unless said emissions have been reduced by 85%.

***Compliance Demonstration Method:***

- a. Refer to Section D for the compliance demonstration method for source-wide emission limits.

**SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS**

- b. Compliance with the PM limits are demonstrated based on the following parameters used to calculate actual emissions for the affected emission points in Area B-3:

**PARTICULATE MATTER EMISSION PARAMETERS AREA B-3**

<b>Emission Point</b>	<b>Process ID</b>	<b>Product</b>	<b>Maximum Throughput (lbs/hr)</b>	<b>Emission factor (lbs/lb)</b>
05 (DR03)	DR-0301, DR-0302	Triphenyl Antimony DRY	740	0.000145
05 (DR03)	DR-0301, DR-0302	Dibutyl tin oxide DRY (Fascat 4201)	411	0.000258
05 (DR03)	DR-0301, DR-0302	Fascat 4101	37	0.00557

- c. The visible emission observations for each emission point listed in Subsection B.2.b (above) shall be conducted in accordance with Section D.
- d. The permittee shall assure compliance with 401 KAR 61:060 by ensuring that all non-fugitive emissions from Area B-3 are routed to the thermal oxidizer (IR-7401).

**3. Testing Requirements:**

- a. Refer to Section E.
- b. Refer to Section D.
- c. Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing in accordance with EPA Reference Method 5 (or equivalent), as referenced in 401 KAR 50:015, Section 1, shall be conducted as required by the Division. Refer to Section G(d)7.

**4. Specific Monitoring Requirements:**

- a. The permittee shall monitor the opacity of visible emissions for each affected emission point not directed to IR-7401; refer to Section D, Opacity Monitoring of Emission Point.
- b. The permittee shall monitor the operating parameters at the specified frequency for each control device. Refer to the respective control device table in Subsection B.7 (below).

**5. Specific Recordkeeping Requirements:**

- a. The permittee shall record and maintain such records of visual observations.
- b. The permittee shall record and maintain such records of monitoring and operating parameters for control equipment as indicated in Subsection B.7 (below).
- b. Refer to Section F.2 regarding retention time of records.

**6. Specific Reporting Requirements:**

Refer to Sections F.5 and F.7.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### 7. Specific Control Equipment Operating Conditions:

#### Control Equipment Area B-3

Emission Point(s)	Process ID	Control Equipment	Monitoring and Operating Parameters	Comments
<b>10 (RX03)</b>	Reactor <i>RX-0316</i>	Caustic Scrubber, TK-0356 (09 & 10 use same control device)	Liquid level $\geq 10''$ (record once daily) pH $\geq 8.0$ (record once daily)	Exceedance of manufacturer's operating parameters shall be reported and/or repaired in accordance with Sections F.6 and F.8.
<b>09 (RC03)</b>	Receiver/Weigh Tank <i>WT-0324</i>	Caustic Scrubber, TK-0356 (09 & 10 use same control device)	Liquid level $\geq 10''$ (record once daily) pH $\geq 8.0$ (record once daily)	Exceedance of manufacturer's operating parameters shall be reported and/or repaired in accordance with Sections F.6 and F.8.
<b>05 (DR03)</b> <b>07 (FS03)</b> <b>08 (PF03)</b> <b>09 (RC03)</b> <b>10 (RX03)</b> <b>12 (EF03)</b>	DR-0301, DR-0302 portable sweep screener FI-0314, FI-0315, FI-0322 TK-0301, TK-0302, TK-0304, TK-0318, TK-0317, TK-0319, TK-0322, WT-0324 RX-0316, RX-0317, RX-0318, RX-0319, RX-0321, RX-0322 Flaker pan, vacuum stripper, filter	Thermal Oxidizer (IR-7401)	See Section E.	See Section E.

The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the emission points are in operation but the associated air pollution control equipment is not.

### 8. Alternate Operating Scenarios: None

### 9. Compliance Schedule:

If VOCs continue to be produced in Area B-3 at levels greater than 500 lbs/year per vent (calculated on a rolling 12-month basis), then emissions from Area B-3 must be routed to the thermal oxidizer (IR-7401) by the schedule defined in the Consent Decree and its amendment. Refer to Attachments A and B.

### 10. Compliance Certification Requirements:

Refer to Section F.9.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### PRODUCTION AREA B-05

Emission Point(s)	Process ID (Installation Date)	Process Description
15 (DC05)	Vacuum still, RX-0505 (1984)	Distillation
	Vacuum still column, CO-0508 (2005)	
16 (DT05)	Drum/tote loading and unloading	Material handling
17 (RX05)	4,000 gal. Extractor, RX-0529 (1978)	Chemical reaction
18 (RC05)	2,000 gal. Mono Cut Tank, TK-0527 (1977)	Product/material receiving
	2,000 gal. Butyl Boil-off Tank, TK-0529 (2005)	
	1,000 gal. Forerunner Hold Tank, TK-0501 (1977)	
	1,000 gal. Monobutyl Receiver, WT-0503 (1996)	
	1,000 gal. Dichloride Receiver, WT-0506 (1964)	
	750 gal. Surge Pot, TK-0508A (1994)	
19 (TE05)	Pipeline/Transport Equipment (N/A)	Pumps, pipes, valves, etc.

**Control Equipment:** None

### **APPLICABLE REGULATIONS:**

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

#### **1. Operating Limitations:**

- Pursuant to 401 KAR 63:020, Section 3, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.
- To preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality, for significant emissions increase of VOCs, maximum annual production for the B-5 area shall not exceed 21,000,000 lbs/yr of monobutyltin trichloride [using the MBTC/DBTC (Dibutyltin dichloride) distillation process] during any 12 consecutive months.
- To preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality, for significant emissions increase of VOCs, dibutyl ether content of butyl crudes raw material shall be maintained at 0.3 weight % (3000 ppm) or less.

#### **Compliance Demonstration Method:**

- For compliance with 401 KAR 63:020, refer to Section D.
- The permittee shall maintain monthly production rates of MBTC/DBTC process. Compliance with the annual limit shall be based on the rolling 12 month total. Within 30 days following the conclusion of each month, the rolling 12-month total shall be calculated for the preceding 12 months.

## **SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS**

- c. The permittee shall maintain records of raw material assay showing specifically that Dibutyl Ether content is at or below 0.3% by weight (3,000 ppm).

**2. Emission Limitations:**

Refer to Section D for source-wide emission limitations regarding 401 KAR 63:020.

**3. Testing Requirements:**

Refer to Section D.

**4. Specific Monitoring Requirements:**

- a. The permittee shall monitor the annual production rate of MBTC based on a 12 month rolling total.
- b. The permittee shall monitor butyl crude assays showing specifically the dibutyl ether content of each shipment of butyl crude.

**5. Specific Recordkeeping Requirements:**

- a. The permittee shall maintain records of analysis for verification that dibutyl ether content of butyl crudes (raw material) shall be maintained at 0.3 weight % (3000 ppm) or less.
- b. The permittee shall maintain records on the monthly and annual production of MBTC based on a 12 month rolling average.
- c. The permittee shall maintain records of butyl crude assays showing specifically the dibutyl ether content of each shipment of butyl crudes.
- d. Refer to Section F.2 regarding retention time of records.

**6. Specific Reporting Requirements:**

Refer to Sections F.5 and F.7.

**7. Specific Control Equipment Operating Conditions: N/A**

**8. Alternate Operating Scenarios: None**

**9. Compliance Schedule: None**

**10. Compliance Certification Requirements:**

Refer to Section F.9.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### PRODUCTION AREA B-06

Emission Point(s)	Process ID (Installation Date)	Process Description
20 (DC06)	2,000 gal. Solvent Recovery Still EP, RX-0609 (2006)	Product distillation
	Distillation Column, CO-0609 (2006)	
21 (DT06)	Drum/tote loading and unloading (2006)	Material handling
22 (RC06)	300 gal. Vent Surge Tank, TK-0608 (2006)	Product/material receiving
	1,000 gal. Dry THF Receiver, TK-0610 (2006)	
	500 gal. Intermediate Cut Tank, TK-0611 (2006)	
	1,500 gal. Dry Solvent Hold Tank, TK-0612 (2006)	
	1,000 gal. Caustic Split Tank, TK-0613 (2006)	
	1,500 gal. Wet Solvent Tank, TK-0615 (2006)	
	100 gal. Waste Cut Tank, TK-0645 (2006)	
	1,500 gal. Solvent Drying Tank, TK-0614 (2006)	
23 (RX06)	2,000 gal. Extractor, RX-0604 (2006)	Chemical reaction
	1,000 gal. #2 Reactor, RX-0605 (2006)	
	1,000 gal. #1 Reactor, RX-0606 (2006)	
24 (TE06)	Pipeline/Transport Equipment (2006)	Pumps, pipes, valves, etc.
25 (MT06)	150 gal. Initiation Mix Tank, WT-0616 (2006)	Product/material mixing
	1,000 gal. Mix I Tank, WT-0617 (2006)	
	250 gal. Mix II Tank, WT-0618 (2006)	
26 (WW06)	Collection Basin, CB-0624 (2006)	Wastewater collection

**Control Equipment:** Thermal Oxidizer and scrubber (IR-7401). Refer to Subsection B.7 (below).

### **APPLICABLE REGULATIONS:**

Consent Decree between United States of America and ATOFINA Chemicals, Inc. and its subsequent amendment.

401 KAR 57:035, *National emission standard for equipment leaks (fugitive emission sources)*.

401 KAR 57:040, *Equipment leaks of benzene*

40 CFR 61 Subpart J, *National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene*

40 CFR 61 Subpart V, *National Emission Standard for Equipment Leaks (Fugitive Emission Sources)*



## **SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS**

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Note: The applicability of 401 KAR 57:035, 401 KAR 57:040, and 40 CFR 61 Subparts J and V is listed only to reference record keeping requirements of 40 CFR 61.110(c)(1).

### **1. Operating Limitations:**

- a. Refer to Section E regarding the use of the Thermal Oxidizer (IR-7401).
- b. Pursuant to 401 KAR 63:020, Section 3, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.

#### ***Compliance Demonstration Method:***

- a. Refer to Section E for the compliance demonstration method for operation of IR-7401.
- b. For compliance with 401 KAR 63:020, refer to Section D.

### **2. Emission Limitations:**

- a. Refer to Section E and Attachments A and B for emission limitations regarding the use of IR-7401.
- b. Refer to Section D for source-wide emission limitations regarding 401 KAR 63:020.

#### ***Compliance Demonstration Method:***

- a. Refer to Section E and Attachments A and B for compliance with emission limitations regarding the use of IR-7401.
- b. For compliance with 401 KAR 63:020, refer to Section D.

### **3. Testing Requirements:**

- a. Refer to Section D.
- b. Refer to Section E.

### **4. Specific Monitoring Requirements:**

- a. Refer to Section E.

### **5. Specific Recordkeeping Requirements:**

- a. Pursuant to 40 CFR 61.246(i), the permittee shall maintain records of the amount of benzene used or produced by this emission point on an annual basis.
- b. Refer to Section F.2 regarding retention time of records.
- b. Refer to Section E.

### **6. Specific Reporting Requirements:**

Refer to Sections F.5 and F.7.

**SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS****7. Specific Control Equipment Operating Conditions:****Control Equipment Area B-6**

<b>Emission Point(s)</b>	<b>Process ID</b>	<b>Control Equipment</b>	<b>Monitoring and Operating Parameters</b>	<b>Comments</b>
<b>20 (DC06)</b> <b>22 (RC06)</b>	RX-0609, CO-0609 TK-0608, TK-0610, TK-0611, TK-0612, TK-0613, TK-0615, TK-0645, TK-0614	Thermal Oxidizer (IR- 7401)	See Section E.	See Section E.
<b>23 (RX06)</b> <b>25 (MT06)</b>	RX-0604, RX-0605, RX-0606 WT-0616, WT-0617, TK-0618			

**8. Alternate Operating Scenarios:** None**9. Compliance Schedule:**

The issuance of this permit serves as the construction permit for Process Area B-06 as a new source. Operation of this unit is contingent upon all non-fugitive sources of VOCs in this Area being connected to the thermal oxidizer (IR-7401) unless emissions are less than 500 lbs/yr per vent (calculated on a 12-month rolling basis) in accordance with the Consent Decree and its Amendment. Refer to Attachments A and B.

**10. Compliance Certification Requirements:**

Refer to Section F.9.

**SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS****STORAGE TANK FARM B-17**

<b>Emission Point(s)</b>	<b>Process ID (Installation Date)</b>	<b>Process Description</b>
27 (ST17)	5,000 gal. organic liquid storage tank, TK-1706 (1989)	Material storage
28 (T4-ST17)	12,000 gal. organic liquid storage tank, TK-1735 (1988)	Material storage
29 (T5-ST17)	12,000 gal. organic liquid storage tank, TK-1736 (1987)	Material storage
30 (TE17)	Pipeline/Transport Equipment (N/A)	Pumps, pipes, valves, etc.

**Control Equipment:** None

**APPLICABLE REGULATIONS:**

401 KAR 60:005, Section 3(l). Incorporated by Reference from 40 CFR 60.110b to 60.117b (Subpart Kb), *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984*. [Applicable to Emission Points (ST17)] (Recordkeeping of size only)

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

**1. Operating Limitations:**

Pursuant to 401 KAR 63:020, Section 3, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.

***Compliance Demonstration Method:***

For compliance with 401 KAR 63:020, refer to Section D.

**2. Emission Limitations:**

Refer to Section D for source-wide emission limits and compliance demonstration method.

**3. Testing Requirements:** None**4. Specific Monitoring Requirements:** None**5. Specific Recordkeeping Requirements:**

The permittee shall record and maintain records of the following information:

- Pursuant to 401 KAR 63:002, Section 3(e) and 40 CFR 60.110b(b), the permittee shall record and maintain readily accessible records showing the dimensions and an analysis showing the storage capacity of each affected storage tank .
- These records shall be maintained on site for the life of the tank and shall be provided to the division upon request.

**6. Specific Reporting Requirements:** None

**SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS**

7. **Specific Control Equipment Operating Conditions:** N/A

8. **Alternate Operating Scenarios:** None

9. **Compliance Schedule:**  
N/A

10. **Compliance Certification Requirements:**  
Refer to Section F.9.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### PRODUCTION AREA B-22

Emission Point(s)	Process ID (Installation Date)	Process Description
	<b>STANNOUS CHLORIDE MFG.</b>	
31 (DC22)	350 gal. #1 SnCl <sub>2</sub> boiler, RX-2231 (1994)	Melt and vaporize
	350 gal. #2 SnCl <sub>2</sub> boiler, RX-2232 (1994)	
32 (RX22)	#1 SnCl <sub>2</sub> bell reactor, RX-2230 (1967)	Chemical reaction
	#2 SnCl <sub>2</sub> bell reactor, RX-2235 (1955)	
33 (RC22)	200 gal. Steady Head Tank, TK-2230 (1978)	Product/material receiving
	300 gal. Tin-Tet Gravity Feed Tank, TK-2243 (1973)	
	200 gal. Steady Head Tank, TK-2235 (1978)	
34 (TE22)	Pipeline/Transport Equipment	Pumps, pipes, valves, etc.
	<b>CRUDE TIN TETRACHLORIDE MFG.</b>	
35 (RX22)	5,000 gal. #1 Converter, RX-2201 (1988)	Chemical reaction
	5,000 gal. #2 Converter, RX-2202 (1999)	
36 (ST22)	5,000 gal. Crude Tin-Tet Storage Tank, TK-2203A (N/A)	Product storage
	5,000 gal. Crude Tin-Tet Storage Tank, TK-2203B (1991)	
	5,000 gal. Crude Tin-Tet Storage Tank, TK-2204A (1968)	
	5,000 gal. Crude Tin-Tet Storage Tank, TK-2204B (1968)	
37 (TE22)	Pipeline/Transport Equipment	Pumps, pipes, valves, etc.
	<b>DE-GASSED TIN TETRACHLORIDE MFG.</b>	
38 (DC22)	2,000 gal. Distillation Boiler, RX-2220 (1994)	Material distillation
	Distillation Column, CO-2220 (1976)	
	150 gal. Surge Pot, TK-2220 (1995)	Product/material receiving
39 (RX22)	59 gal. Feather Tin pot reactor, RX-2223 (1989)	Chemical reaction
	100 gal. Tin Pot, TK-2222B	

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

Emission Point(s)	Process ID (Installation Date)	Process Description
40 (ST22)	5,000 gal. De-gassed SnCl <sub>4</sub> Storage Tank, TK-2242A (1998)	Product storage
	5,000 gal. De-gassed SnCl <sub>4</sub> Storage Tank, TK-2242B (1998)	
	5,000 gal. De-gassed SnCl <sub>4</sub> Storage Tank, TK-2242C (1994)	
	5,000 gal. De-gassed SnCl <sub>4</sub> Storage Tank, TK-2242D (1998)	
41 (TE22)	Pipeline/Transport Equipment	Pumps, pipes, valves, etc.

**Control Equipment:** Venturi Scrubber (VJ-2244), Venturi Scrubbers (CO-2225A and CO-2225B), and Venturi Scrubber (CO-2275). Refer to Subsection B.7 (below).

### **APPLICABLE REGULATIONS:**

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

#### **1. Operating Limitations:**

Pursuant to 401 KAR 63:020, Section 3, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.

#### **Compliance Demonstration Method:**

For compliance with 401 KAR 63:020, refer to Section D.

#### **2. Emission Limitations:**

Refer to Section D for source-wide emission limits and compliance demonstration method.

#### **3. Testing Requirements:**

See Section D.

#### **4. Specific Monitoring Requirements:**

Refer to Subsection 7 of this Section, Control Equipment Table, Area B-22.

#### **5. Specific Recordkeeping Requirements:**

- a. The permittee shall record and maintain such records of the following information:
  - i. Quantitative production records for each product manufactured in Area B-22.
  - ii. Refer to Subsection B.7 (below).
- b. Refer to Section F.2 regarding retention time of records.

#### **6. Specific Reporting Requirements:** N/A



**SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS**

8. **Alternate Operating Scenarios:** None

9. **Compliance Schedule:**  
N/A

10. **Compliance Certification Requirements:**  
Refer to Section F.9.



## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### PRODUCTION AREA B-27

Emission Point(s)	Process ID (Installation Date)	Process Description
<b>42 (DR27)</b>	8,000 lb Abbe Dryer, DR-2783 (1994)	Product drying
	8,000 lb Abbe Dryer, DR-2793 (1995)	
<b>43 (RC27)</b>	250 gal. Surge Pot, TK-2783A (1994)	Product/material receiving
	250 gal. Surge Pot, TK-2793A (1996)	
<b>44 (DT27)</b>	Drum/tote loading and unloading (N/A)	Material handling
<b>45 (FS27)</b>	Milling machine, ML-2710 (1997)	Product forming/shaping
	2 Granulators, ML-27	
<b>46 (TE27)</b>	Pipeline/Transport Equipment (N/A)	Pumps, pipes, valves, etc.
<b>47 (WW27)</b>	Wastewater Collection Basin	Wastewater collection

**Control Equipment:** Dust Collector (DU-2729)

### **APPLICABLE REGULATIONS:**

401 KAR 59:010, *New process operations*, which applies to emission points constructed on or after July 2, 1975

401 KAR 57:035, *National emission standard for equipment leaks (fugitive emission sources)*

401 KAR 57:040, *Equipment leaks of benzene*

40 CFR 61 Subpart J, *National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene*

40 CFR 61 Subpart V, *National Emission Standard for Equipment Leaks (Fugitive Emission Sources)*

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Note: The applicability of 401 KAR 57:035, 401 KAR 57:040, and 40 CFR 61 Subparts J and V is listed only to reference record keeping requirements of 40 CFR 61.110(c)(1).

### **1. Operating Limitations:**

Pursuant to 401 KAR 63:020, Section 3, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.

### **Compliance Demonstration Method:**

For compliance with 401 KAR 63:020, refer to Section D.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### 2. Emission Limitations:

- a. Pursuant to 401 KAR 59:010, emissions of particulate matter for emission points 42 (DR27), 44 (DT27), 45 (FS27) shall not exceed the allowable rate limit as calculated by the following equation using the process weight rate (in units of tons/hr).

For process rates up to 1,000 lbs/hr:

$$E = 2.34 \text{ lbs/hr}$$

For process rates greater than 1,000 lbs/hr up to 60,000 lbs/hr:

$$E = 3.59P^{0.62}$$

For the equation:

E = rate of emissions in lb/hr, and

P = process weight rate in tons/hr.

- b. Pursuant to 401 KAR 59:010, Section 3, no person shall cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack which is equal to or greater than twenty (20) percent opacity, as prescribed by 40 CFR 60, Appendix A, Method 9.
- c. Refer to Section D for source-wide emission limits.

### ***Compliance Demonstration Method:***

- a. The permittee shall assure compliance with the particulate matter emission limitation for this emission point by emission factors and ensuring proper operation of the Dust Collector DU-2729. Proper dust collector operation shall be assured by fulfilling requirements specified under Subsections B.4, B.5, and B.7 (below). Maximum operating rates, control efficiencies, and emission factors are as follows:

Emission Point	Process ID	Product	Maximum Throughput (lbs/hr)	Emission factor (lbs/lb)	Control Efficiency
42 (DR27)	DR-2783 & DR-2793	BSA DRY	114	7.15 E-4	99.5%
		Dibutyltin Oxide DRY	799	1.81 E-5	99.5%
		Fascat 4101 DRY	114	1.16 E-3	99.5%
		Fascat 4350 Catalyst	57	1.16 E-3	99.5%
		Tetraphenylnitin DRY	833	1.29 E-4	99.5%
		Thermolite 813	57	3.30 E-4	99.5%
		TPTH	1,250	0.0153	99.5%

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

44 (DT27)	DT-27	BSA DRY	114	1.75 E-7	0%
		Dibutyltin Oxide DRY	799	7.04 E-8	0%
		Fascat 4101 DRY	114	3.50 E-6	0%
		Tetraphenyltin DRY	833	1.14 E-7	0%
		Thermolite 813	57	2.23 E-8	0%
		TPTH	1,250	8.59 E-9	0%
45 (FS27)	MI-2710	BSA DRY	114	1.76 E-5	99.5%
		Dibutyltin Oxide DRY	799	7.05 E-6	99.5%
		Thermolite 813	57	7.00 E-6	99.5%

- b. The permittee shall assure compliance with the opacity limitations for each emission point listed in Subsection B.2.a. (above) by conducting visible emission observations in accordance with Section D, Opacity Monitoring for Emission Point.
- c. Refer to Section D for the compliance demonstration method for source-wide emission limits.

### 3. Testing Requirements:

- a. Refer to Section D.
- b. Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing in accordance with EPA Reference Method 5 (or equivalent), as referenced in 401 KAR 50:015, Section 1, shall be conducted as required by the Division. Refer to Section G(d)7.

### 4. Specific Monitoring Requirements:

- a. The permittee shall monitor the opacity of visible emissions for each affected Emission Point in accordance with Section D., Opacity Monitoring of Emission Point.
- b. Refer to Control Equipment Table, Area B-27, in Subsection B.7 (below).

### 5. Specific Recordkeeping Requirements:

- a. The permittee shall record and maintain such records of the following information:
  - i. Pursuant 40 CFR 61.246(i) the permittee shall maintain records of the amount of benzene used or produced by this emission point on an annual basis.
  - ii. Records of the visual observations specified in Section B.4 .a (above).
  - iii. monitoring and operating parameters for control equipment as indicated in Subsection B.7 (below).
- b. Refer to Section F.2 regarding retention time of records.

### 6. Specific Reporting Requirements: None

**SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS****7. Specific Control Equipment Operating Conditions:****Control Equipment Area B-27**

<b>Emission Point(s)</b>	<b>Process ID</b>	<b>Control Equipment</b>	<b>Operating Parameters</b>	<b>Comments</b>
<b>42 (DR27)</b>	DR-2783, DR-2793	Dust Collector, DU-2729 (1995)	Pressure Drop $\leq 3''$ H <sub>2</sub> O (check once per day when process in operation)	Exceedance of manufacturer operating parameters shall be reported and/or repaired in accordance with Sections F.6 and F.8.
<b>45 (FS27)</b>	ML-2710, ML-27			

**8. Alternate Operating Scenarios:** None**9. Compliance Schedule:** N/A**10. Compliance Certification Requirements:**

Refer to Section F.9.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### PRODUCTION AREA B-28

Emission Point(s)	Process ID (Installation Date)	Process Description
	<b>TIN CHEMICALS MANUFACTURING</b>	
<b>48 (RX28)</b>	1,500 gal. #1 Reactor, RX-2824 (2002)	Chemical reaction
	2,000 gal. T-9 Reactor, RX-2826 (1969)	
	1,000 gal. Oxide Reactor A, RX-2838 (1969)	
	2,000 gal. Oxide Reactor B, RX-2840 (1974)	
<b>49 (PF28)</b>	50 gal. Niagara Filter, FI-2823 (N/A)	Product filtering
<b>50 (RC28)</b>	85 gal. Vacuum Surge Pot, TK-2841 (1994)	Product/material receiving
	200 gal. Reactor Vacuum Receiver, TK-2828 (1992)	
	2,000 gal. #1 Catch Basin, TK-2847 (1979)	
<b>51 (ST28)</b>	8,000 gal. Spent Acid Storage Tank, TK-2850 (1969)	Material Storage
<b>52 (TE28)</b>	Pipeline/Transport Equipment (N/A)	Pumps, pipes, valves, etc.
<b>53 (WT28)</b>	300 gal. Tin Tet Weigh Tank, WT-2872 (1957)	Material handling
<b>54 (HT28)</b>	200 gal. Acid-Water Hold Tank, TK-2824 (1995)	Interim storage
	1,000 gal. Poly Hold Tank, TK-2825 (1995)	
	200 gal. Hopper, TK-2829 (1964)	
<b>55 (MT28)</b>	3,000 gal. T-9 Blend Tank, TK-2823 (1980)	Product/material mixing
	500 gal. #1 Dissolving Tank, TK-2835 (1988)	
	250 gal. #2 Dissolving Tank, TK-2833 (N/A)	
<b>56 (FS28)</b>	Portable Flaker, (N/A)	Product forming/shaping
<b>57 (CF28)</b>	#2 Centrifuge, CF-2839 (1963)	Product separation
<b>58 (DR28)</b>	Abbe Dryer, DR-2841 (1963)	Product/material drying
<b>59 (DT28)</b>	Drum/tote loading and unloading (N/A)	Material handling
	<b>STANNATES/TINSOL MANUFACTURING</b>	
<b>60 (S7-RX28)</b>	2,000 gal. #1 Tinsol Reactor, RX-2807 (1968)	Chemical reaction
	2,000 gal. #2 Tinsol Reactor, RX-2808 (1968)	
	1,500 gal. Stannate Reactor, RX-2810 (1963)	
<b>61 (S7-RC28)</b>	2,000 gal. Stannate Receiver Tank, TK-2811 (1978)	Product/material receiving
	3,000 gal. Stannate Evaporator Tank, TK-2806 (1970)	

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

Emission Point(s)	Process ID (Installation Date)	Process Description
62 (S7-HT28)	3,000 gal. Stannate Mother Liquor, TK-2805 (N/A)	Interim storage
	750 gal. Stannate Surge Tank, TK-2815 (1996)	
	50 gal. Tinsol Surge Tank, TK-2816 (1983)	
	2,000 gal. Tinsol Hold Tank, TK-2818 (1968)	
	3,300 gal. Settling Tank, TK-2819 (1981)	
	3,300 gal. Settling Tank, TK-2820 (1981)	
	3,300 gal. Settling Tank, TK-2821 (1981)	
	3,300 gal. Settling Tank, TK-2822 (1981)	
63 (S7-CF28)	Stannate Centrifuge (Tolhurst), CF- 2814 (1975)	Product separation
	Tinsol Centrifuge, CF-2817 (1975)	
64 (S7-ST28)	5,000 gal. Caustic Soda Tank, TK-2801 (1981)	Material storage
	5,000 gal. Caustic Potash Tank, TK-2802 (1979)	
65 (S7-DT28)	Drum/tote loading and unloading (N/A)	Material handling

**Control Equipment:** Dust Collector (DU-2841) and Scrubber (TK-2803). Refer to Subsection B.7 (below).

### **APPLICABLE REGULATIONS:**

401 KAR 59:010, *New process operations*, which applies to emission points constructed on or after July 2, 1975.

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

### **1. Operating Limitations:**

Pursuant to 401 KAR 63:020, Section 3, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.

### **Compliance Demonstration Method:**

For compliance with 401 KAR 63:020, refer to Section D.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### 2. Emission Limitations:

- a. Pursuant to 401 KAR 59:010, emissions of particulate matter for emission point 58 (DR28) shall not exceed the allowable rate limit as calculated by the following equation using the process weight rate (in units of tons/hr).

For process rates up to 1,000 lbs/hr:

$$E = 2.34 \text{ lbs/hr}$$

For process rates greater than 1,000 lbs/hr up to 60,000 lbs/hr:

$$E = 3.59P^{0.62}$$

For the equation:

E = rate of emissions in lb/hr, and

P = process weight rate in tons/hr.

- b. Pursuant to 401 KAR 59:010, Section 3, no person shall cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack which is equal to or greater than twenty (20) percent opacity, as prescribed by 40 CFR 60, Appendix A, Method 9.
- c. Pursuant to 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality, the total VOC emissions from this Emission Point shall be equal to or less than 20 tons/yr.
- d. Refer to Section D for source-wide emission limits.

### *Compliance Demonstration Method:*

- a. The permittee shall assure continuing compliance with the particulate matter emission limitation for this emission point by ensuring proper operation of the Dust Collector DU-2841 and scrubber TK-2803. Proper dust collector and scrubber operation shall be assured by fulfilling requirements specified under Subsections B.4 and B.5, below. Compliance with the PM limits are demonstrated based on the following parameters used to calculate actual emissions for the affected emission point in Area B-28:

Emission Point	Process ID	Product	Maximum Throughput (lbs/hr)	Emission factor (lbs/lb)	Control Efficiency
58 (DR28)	DR28	Alstan 60	108	1.57 E-3	99.0%

- b. The permittee shall assure compliance with the opacity limitations for each emission point listed in Subsection B.2.a (above) by conducting visible emission observations in accordance with Section D, Opacity Monitoring of Emission Unit.
- c. Compliance with the annual VOC emission limit shall be based on the rolling 12 month total. Within 30 days following the conclusion of each month, the rolling 12 month total shall be calculated for the preceding 12 months.
- d. Refer to Section D for the compliance demonstration method for the source-wide emission limits.

### 3. Testing Requirements:

Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing in accordance with EPA Reference Method 5 (or equivalent), as referenced in 401 KAR 50:015, Section 1, shall be conducted as required by the Division. Refer to Section G(d)7.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### 4. Specific Monitoring Requirements:

- The permittee shall monitor the opacity of visible emissions for each affected Emission Point in accordance with Subsection B.2 (above) and Section D., Opacity Monitoring of Emission Point.
- The permittee shall calculate the monthly VOC emission rates from each affected Emission Point. Compliance with the annual limit shall be based on the rolling 12 month total. Within 30 days following the conclusion of each month, the rolling 12-month total shall be calculated for the preceding 12 months.
- Refer to Control Equipment Table, Area B-28, in Subsection B.7 (below).

### 5. Specific Recordkeeping Requirements:

- The permittee shall record and maintain such records of the following information:
  - The results of the annual inspections performed on dust collector DU-2841 and scrubber TK-2803 as required in Subsection B-7 (below).
  - Monthly VOC emission calculations described in Subsections B.2. and B.4.b (above).
  - Records of the visual observations.
- Refer to Section F.2 regarding retention time of records.

### 6. Specific Reporting Requirements:

Summary reports of VOC emissions shall be made to the Division within 30 days after the end of each 6 month period. The reports shall include a description of the affected months' VOC emissions, in tons, and the 12-month rolling total annual VOC emission rate in tons.

### 7. Specific Control Equipment Operating Conditions:

#### Control Equipment Area B-28

Emission Point(s)	Process ID	Control Equipment	Operating Parameters	Comments
58 (DR28)	DR-2841	Portable Dustex Dust Collector, DU-2841 (1988)	Pressure Drop $\leq 6''$ H <sub>2</sub> O	Comply with manufacturer's specifications.
59 (DT28)	Drum/tote load/unload		Use when dump materials only (vented inside building) (record daily)	
60 (RX28)	<i>RX-2807, RX-2808, RX-2810</i>	Scrubber, TK-2803 (1981)	Pressure Drop $\leq 6''$ H <sub>2</sub> O (record daily)	a) Refer to Section I b) Exceedence of operating parameters shall be reported and/or repaired in accordance Section F.6. and F.8.
63 (CF28)	<i>CF-2817</i>			
62 (HT28)	<i>TK-2816, TK-2815, TK-2805</i>			
61 (RC28)	<i>TK-2806, TK-2811</i>			

- Dust collector DU-2841 shall be operated in accordance with standard recommended operating procedures at all times the emission point is in operation. It shall be inspected on an annual basis for proper operation of the following:
  - Filters - replace as needed



**SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS**

2. Gaskets and Seals
3. Filter cleaning mechanism
4. Differential pressure gauge
- b. Scrubber TK-2803 shall be operated in accordance with standard recommended operating procedures at all times the emission points are in operation. The scrubbers shall be inspected on an annual basis for proper operation of the following:
  1. Scrubber liquid pump(s)
  2. Scrubber liquid spray nozzles
  3. Scrubber internals
- c. The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the emission points are in operation but the associated air pollution control equipment is not.

**8. Alternate Operating Scenarios:** None

**9. Compliance Schedule:**  
N/A

**10. Compliance Certification Requirements:**  
Refer to Section F.9.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### PRODUCTION AREA B-32

Emission Point(s)	Process ID (Installation Date)	Process Description
	<b>THIN FILM EVAPORATOR AREA</b>	
<b>66 (HT32)</b>	4,000 gal. TFE Feed Tank, TK-3216 (1996)	Interim storage
<b>67 (RC32)</b>	2,000 gal. Blend Tank, TK-3214 (1970)	Product/material receiving
	Vacuum Receiver, TK-32102 (1970)	
<b>68 (RX32)</b>	Reactor/Evaporator, RX-32100 (1969)	Chemical processing
<b>69 (DT32)</b>	Drum/tote loading and unloading	Material handling
<b>70 (TE32)</b>	Pipeline/Transport Equipment	Pumps, pipes, valves, etc.
	<b>DRYER/BLENDER AREA</b>	
<b>71 (DR32)</b>	Ribbon Blender, BL-3219 (1969)	Product blending
<b>72 (FS32)</b>	Mill, ML-3219 (N/A)	Product forming/shaping
<b>73 (RC32)</b>	200 gal. Surge Pot/Blender, TK-3219B (1969)	Product/material receiving
<b>74 (DT32)</b>	Drum/tote loading and unloading	Material handling
<b>75 (TE32)</b>	Pipeline/Transport Equipment	Pumps, pipes, valves, etc.
<b>76 (WW32)</b>	Wastewater Collection Basin	Wastewater collection
	<b>GRIGNARD END PRODUCTS MFG</b>	
<b>77 (RX32)</b>	2,000 gal. #1 Reactor, RX-3201 (1969)	Chemical reaction
	2,000 gal. #2 Reactor, RX-3202 (1969)	
	2,000 gal. #3 Reactor, RX-3203 (1969)	
<b>78 (HT32)</b>	2,000 gal. #1 Centrifuge Feed Tank, TK-3205 (1969)	Interim storage
	2,000 gal. #2 Centrifuge Feed Tank, TK-3207 (1967)	
<b>79 (CF32)</b>	#1 Centrifuge, CF-3204 (1969)	Product separation
	#2 Centrifuge, CF-3208 (1969)	
<b>80 (DC32)</b>	1,000 gal. Mono. Still, RX-3245 (1982)	Product distillation
	2,500 gal. E.P. Still, RX-3246 (1990)	
	Mono Still, CO-3245 (1979)	

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

Emission Point(s)	Process ID (Installation Date)	Process Description
<b>81 (RC32)</b>	250 gal. #1 Centrifuge Wash Tank, TK-3204 (1969)	Product/material receiving
	2,000 gal. Vacuum Receiver, TK-3209 (1969)	
	2,000 gal. #2 Solvent Receiver, TK-3210 (1969)	
	500 gal. #2 Vacuum Receiver, TK-3242 (1969)	
	500 gal. Mono Wet Receiver Tank, TK-3248 (1969)	
	2,000 gal. TPP Mother Liquor Storage, TK-3213 (1996)	
<b>82 (PF32)</b>	Portable Niagara Filters	Product filtering
<b>83 (TE32)</b>	Pipeline/Transport Equipment	Pumps, pipes, valves, etc.
<b>84 (DT32)</b>	Drum/tote loading and unloading	Material handling
<b>85 (ST32)</b>	13,000 gal. #2 Storage Tank, TK-3244 (1969)	Product/material storage
	1,000 gal Dry Receiver, TK-3247 (1969)	
<b>86 (WW32)</b>	1,000 gal. #1 Centrifuge Catch Basin, CB-3217 (1969)	Wastewater collection
	<b>HIGH TEMPERATURE REACTOR AREA</b>	
<b>87 (RX32)</b>	750 gal. Thermal Dispro Reactor, RX-32115 (1969)	Chemical reaction
<b>88 (DT32)</b>	Drum/tote loading and unloading	Material handling
<b>89 (WT32)</b>	2,000 gal. Octyl Crudes Weigh Tank, TK-3212 (1969)	Material handling
<b>90 (ST32)</b>	3,000 gal. Octyl Crudes Storage Tank, TK-3211 (1967)	Material storage
<b>91 (PF32)</b>	Portable Filter	Product filtering
<b>92 (TE32)</b>	Pipeline/Transport Equipment	Pumps, pipes, valves, etc.
<b>93 (WW32)</b>	Wastewater Collection Basin	Wastewater collection
	<b>B-32 WEST</b>	
<b>94 (CF32)</b>	#4 Centrifuge, CF-3226 (1969)	Product separation
<b>95 (ST32)</b>	4,000 gal. DBTC Storage Tank, TK-3262 (1996)	Material storage
<b>96 (DT32)</b>	Drum/tote loading and unloading	Material handling
<b>97 (RC32)</b>	1,500 gal. Vacuum Receiver, TK-3260 (1995)	Product/material receiving

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

Emission Point(s)	Process ID (Installation Date)	Process Description
98 (RX32)	4,000 gal. #6 Reactor, RX-3229 (1969)	Chemical reaction
	4,000 gal. #7 Reactor, RX-3228 (1969)	
99 (WW32)	#4 Centrifuge Catch Basin, TK-3230 (1982)	Wastewater collection
100 (TE32)	Pipeline/Transport Equipment	Pumps, pipes, valves, etc.
	<b>MISCELLANEOUS EQUIPMENT</b>	
101 (DC32)	2,000 gal. #2 E.P. Still, RX-3240 (1982)	Product distillation
102 (DT32)	Drum/tote loading and unloading	Material handling
103 (RC32)	1,500 gal. Strip tank, TK-3241 (1969)	Product/material receiving
104 (TE32)	Pipeline/Transport Equipment	Pumps, pipes, valves, etc.

**Control Equipment:** Thermal Oxidizer and scrubber (IR-7401) and dust collector (DU-3219). The following emission points will be required to be controlled by IR-7401 in accordance with Attachments A and B if emissions exceed 500 lbs/yr per process vent: 66, 67, 68, 71, 72, 73, 77, 78, 79, 80, 81, 82, 85, 87, 89, 90, 91, 94, 95, 97, 98, 101, and 103. Refer to Subsection B.7 and Section E.

### **APPLICABLE REGULATIONS:**

Consent Decree between United States of America and ATOFINA Chemicals, Inc. and its subsequent amendment.

401 KAR 59:010, *New process operations, which applies to emission points constructed on or after July 2, 1975.*

401 KAR 57:035, *National emission standard for equipment leaks (fugitive emission sources).*

401 KAR 57:040, *Equipment leaks of benzene*

40 CFR 61 Subpart J, *National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene*

40 CFR 61 Subpart V, *National Emission Standard for Equipment Leaks (Fugitive Emission Sources)*

401 KAR 61:060, *Existing sources using organic solvents*

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Note: The applicability of 401 KAR 57:035, 401 KAR 57:040, and 40 CFR 61 Subparts J and V is listed only to reference record keeping requirements of 40 CFR 61.110(c)(1).

### **1. Operating Limitations:**

- Pursuant to 401 KAR 63:020, Section 3, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.
- Refer to Section E regarding the use of the Thermal Oxidizer (IR-7401).

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### *Compliance Demonstration Method:*

- a. For compliance with 401 KAR 63:020, refer to Section D.
- b. Refer to Section E for the compliance demonstration method for operation of IR-7401.

### 2. Emission Limitations:

- a. Refer to Section D for potentially hazardous matter or toxic substance limitations and to Subsections B.4 and B.5 (below) for recordkeeping and monitoring requirements.
- b. Pursuant to 401 KAR 59:010, emissions of particulate matter for emission point 71 shall not exceed the allowable rate limit as calculated by the following equation using the process weight rate (in units of tons/hr).

For process rates up to 1,000 lbs/hr:

$$E = 2.34 \text{ lbs/hr}$$

For process rates greater than 1,000 lbs/hr up to 60,000 lbs/hr:

$$E = 3.59P^{0.62}$$

For the equation:

E = rate of emissions in lb/hr, and  
P = process weight rate in tons/hr.

- c. Pursuant to 401 KAR 59:010, Section 3, no person shall cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack which is equal to or greater than twenty (20) percent opacity, as prescribed by 40 CFR 60, Appendix A, Method 9.
- d. Pursuant to 401 KAR 61:060 Section 3(1), affected facilities using organic solvents shall not discharge more than 40 pounds per day or 8 pounds per hour unless said emissions have been reduced by 85%.

### *Compliance Demonstration Method:*

- a. Refer to Section D for the compliance demonstration method for source-wide emission limits.
- b. The permittee shall assure continuing compliance with the particulate matter emission limitation for Emission Point 71 (DR32) BL-3219 by ensuring proper operation of the dust collector. Proper dust collector operation shall be assured by fulfilling requirements specified under Subsections B.4 and B.5 (below). Compliance with the PM limits are demonstrated based on the following parameters used to calculate actual emissions for the affected emission points in Area B-32:

Emission Point	Process ID	Product	Maximum Throughput (lbs/hr)	Emission factor (lbs/lb)	Control Efficiency
71 (DR32)	BL-3219	Dibutyltin Oxide DRY (Fascat 4201)	1,113.88	1.11 E-2	99.9 %
		BSA DRY	35.59	1.11 E-2	99.9%
		Fascat 4101 Dry	76.92	5.57 E-3	99.9%
		S-28	1,113.88	1.20 E-3	99.9%
		Triphenyltin Hydroxide (TPTH)	114.16	8.90 E-3	99.9%

## **SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS**

- c. The visible emission observations for each emission point listed in Subsection B.2.b (above) shall be conducted in accordance with Section D.
- d. Compliance with 401 KAR 61:060, Section 3(1) shall be demonstrated by non-fugitive emissions being either less than 500 lbs/yr per vent or routed to the thermal oxidizer (IR-7401) as required in Attachments A and B.

### **3. Testing Requirements:**

- a. Refer to Section E.
- b. Refer to Section D.
- c. Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing in accordance with EPA Reference Method 5 (or equivalent), as referenced in 401 KAR 50:015, Section 1, shall be conducted as required by the Division. Refer to Section G(d)7.

### **4. Specific Monitoring Requirements:**

- a. The permittee shall monitor the opacity of visible emissions for each affected Emission Point in accordance with Subsection 2 (above) and Section D., Opacity Monitoring of Emission Point.
- b. Refer to Section E.
- c. The permittee shall monitor the operating parameters at the specified frequency for each control device. Refer to the respective control device table in Subsection B. 7 (below).

### **5. Specific Recordkeeping Requirements:**

- a. Refer to Section E.
- b. The permittee shall record and maintain such records of the following information:
  - i. The results of the annual inspections performed on dust collector DU-3219.
  - ii. Pursuant to 40 CFR 61.246(i), the permittee shall maintain records of the amount of benzene used or produced by this emission point on an annual basis.
  - iii. Records of the visual observations.
  - iv. monitoring and operating parameters for control equipment as indicated in Subsection B.7 (below).
- c. Refer to Section F.2 regarding retention time of records.

### **6. Specific Reporting Requirements:**

Refer to Sections F.5 and F.7.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### 7. Specific Control Equipment Operating Conditions:

#### Control Equipment Area B-32

Emission Point(s)	Process ID	Control Equipment	Operating Parameters	Comments
71 (DR32)	BL-3219	Evo Corp. 84FN49 Dust Collector, DU-3219 (1974)	Pressure Drop $\leq 6''$ H <sub>2</sub> O (record daily)	a) Refer to Section I b) Exceedence of manufacturer operating parameters shall be reported and/or repaired in accordance with Sections F.6 and F.8.
See Section E.	See Section E.	Thermal Oxidizer (IR-7401)	See Section E.	See Section E.

- a. Dust collector DU-3219 shall be operated in accordance with manufacturer's specifications and/or standard recommended operating procedures at all times the emission point is in operation. It shall be inspected on an annual basis for proper operation of the following:
  1. Filters - replace as needed
  2. Gaskets and Seals
  3. Filter cleaning mechanism
  4. Differential pressure gauge
- b. The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the emission points are in operation but the associated air pollution control equipment is not.

### 8. Alternate Operating Scenarios: None

### 9. Compliance Schedule:

If VOCs continue to be produced in Area B-32 at levels greater than 500 lbs/year per vent (calculated on a rolling 12-month basis), then emissions from Area B-32 must be routed to the thermal oxidizer (IR-7401) by the schedule defined in the Consent Decree and its amendment. Refer to Attachments A and B.

### 10. Compliance Certification Requirements:

Refer to Section F.9.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### PRODUCTION AREA B-33

<b>Emission Point(s)</b>	<b>Process ID (Installation Date)</b>	<b>Process Description</b>
<b>105 (DC33)</b>	3,000 gal. Solvent Recovery Still EP, RX-3315 (2006)	Product distillation
	Vapor Column, CO-3315 (2006)	
<b>106 (DT33)</b>	Drum/tote loading and unloading (2006)	Material handling
<b>107 (HT33)</b>	100 gal. Intermediate Cut Tank, TK-3307 (2006)	Interim storage
	100 gal. Solvent Condensate Tank (2006)	
	450 gal. Azeo Cut Tank, TK-3308 (2006)	
	750 gal. Mix II Tank, TK-3309 (2006)	
	1,500 gal. Mix I Tank, TK-3310 (2006)	
	2,000 gal. Solvent Drying Tank, TK-3313 (2006)	
	2,000 gal. #1 Dry Solvent Hold Tank, TK-3314 (2006)	
	2,000 gal. #1 Blend Tank, TK-3316 (2006)	
	2,600 gal. #2 Blend Tank, TK-3317 (2006)	
	2,000 gal. Caustic Split Tank, TK-3318 (2006)	
	2,000 gal. #2 Dry Solvent Hold Tank, TK-3321 (2006)	
	3,000 gal. Wet Solvent Hold Tank, TK-3325 (2006)	
	100 gal. Solvent Condensate Tank, TK-3349 (2006)	
<b>108 (RC33)</b>	2,000 gal. #1 Solvent Receiver, TK-3319 (2006)	Product/material receiving
	2,000 gal. #2 Solvent Receiver, TK-3320 (2006)	
<b>109 (RX33)</b>	2,000 gal. Grignard Reactor, RX-3301 (2006)	Chemical reaction
	3,000 gal. Coupling Reactor, RX-3302 (2006)	
	4,000 gal. Extractor, RX-3303 (2006)	
	3,000 gal. #4 Reactor, RX-3330 (2006)	
<b>110 (TE33)</b>	Pipeline/Transport Equipment (2006)	Pumps, pipes, valves, etc.
<b>111 (WW33)</b>	Collection Basin, CB-3331 (2006)	Wastewater collection



## **SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS**

### **PRODUCTION AREA B-33**

**Control Equipment:** Thermal Oxidizer and scrubber (IR-7401). Refer to Subsection B.7 (below).

#### **APPLICABLE REGULATIONS:**

Consent Decree between United States of America and ATOFINA Chemicals, Inc. and its subsequent amendment.

401 KAR 57:035, *National emission standard for equipment leaks (fugitive emission sources)*.

401 KAR 57:040, *Equipment leaks of benzene*

40 CFR 61 Subpart J, *National Emission Standard for Equipment Leaks (Fugitive Emission Sources)* of Benzene

40 CFR 61 Subpart V, *National Emission Standard for Equipment Leaks (Fugitive Emission Sources)*

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Note: The applicability of 401 KAR 57:035, 401 KAR 57:040, and 40 CFR 61 Subparts J and V is listed only to reference record keeping requirements of 40 CFR 61.110(c)(1).

#### **1. Operating Limitations:**

- a. Refer to Section E regarding the use of the Thermal Oxidizer (IR-7401).
- b. Pursuant to 401 KAR 63:020, Section 3, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.

#### ***Compliance Demonstration Method:***

- a. Refer to Section E for the compliance demonstration method for operation of IR-7401.
- b. For compliance with 401 KAR 63:020, refer to Section D.

#### **2. Emission Limitations:**

- a. Refer to Section E and Attachments A and B for emission limitations regarding the use of IR-7401.
- b. Refer to Section D for source-wide emission limitations regarding 401 KAR 63:020.

#### ***Compliance Demonstration Method:***

- a. Refer to Section E and Attachments A and B for compliance with emission limitations regarding the use of IR-7401.
- b. For compliance with 401 KAR 63:020, refer to Section D.

#### **3. Testing Requirements:**

- a. Refer to Section D.
- b. Refer to Section E.
- c. Pursuant to 401 KAR 50:045, Section 1, performance testing in accordance with EPA Reference Method 25 (or equivalent), VOC emissions, as referenced in 401 KAR 50:015, Section 1, shall be conducted as required by the Division. Refer to Section G(d)7.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### 4. Specific Monitoring Requirements:

- a. Refer to Section E.

### 5. Specific Recordkeeping Requirements:

- a. Pursuant to 40 CFR 61.246(i), the permittee shall maintain records of the amount of benzene used or produced by this emission point on an annual basis.
- b. Refer to Section F.2 regarding retention time of records.
- c. Refer to Section E.

### 6. Specific Reporting Requirements:

Refer to Sections F.5 and F.7.

### 7. Specific Control Equipment Operating Conditions:

#### Control Equipment Area B-33

Emission Point(s)	Process ID	Control Equipment	Monitoring and Operating Parameters	Comments
<b>105 (DC33)</b> <b>107 (HT33)</b>  <b>108 (RC33)</b> <b>109 (RX33)</b>	RX-3315, CO-3315 TK-3307, TK-3308, TK-3309, TK-3310, TK-3313, TK-3314, TK-3316, TK-3317, TK-3318, TK-3321, TK-3325, TK-3349 TK-3319, TK-3320 RX-3301, RX-3302, RX-3303, RX-3330	Thermal Oxidizer (IR-7401)	See Section E.	See Section E.

The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the emission points are in operation but the associated air pollution control equipment is not.

### 8. Alternate Operating Scenarios: None

### 9. Compliance Schedule:

The issuance of this permit serves as the construction permit for Process Area 33 as a new source. Operation of this unit is contingent upon all non-fugitive sources of VOCs in this Area being connected to the thermal oxidizer (IR-7401) unless emissions are less than 500 lbs/yr per vent (calculated on a 12-month rolling basis) in accordance with the Consent Decree and its Amendment. Refer to Attachments A and B.

### 10. Compliance Certification Requirements:

Refer to Section F.9.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### PRODUCTION AREA B-39

Emission Point(s)	Process ID (Installation Date)	Process Description
	<b>Grignard End Products Mfg.</b>	
<b>112 (CF39)</b>	#1 Centrifuge, CF-3911 (2006)	Product separation
	#2 Centrifuge, CF-3904 (2006)	
<b>113 (DC39)</b>	2,000 gal. Solvent Still EP, RX-3934 (2006)	Product distillation
<b>114 (DT39)</b>	Drum/tote loading and unloading (2006)	Material handling
<b>115 (HT39)</b>	2,000 gal. #2 Centrifuge Feed Tank, TK-3906 (2006)	Interim storage
	2,000 gal. #1 Centrifuge Feed Tank, TK-3909 (2006)	
	300 gal. Azeo Tank, TK-3978 (2006)	
	1,500 gal. Weigh tank, TK-3925 (2006)	
<b>116 (PF39)</b>	Rosenmund Filter, FI-3910 (2006)	Product filtering
<b>117 (RC39)</b>	1,500 gal. #2 Centrifuge Receiver, TK-3916 (2006)	Product/material receiving
	1,500 gal. #1 Centrifuge Receiver, TK-3917 (2006)	
	1,200 gal. #2 Vacuum Receiver, TK-3914 (2006)	
	1,200 gal. #1 Vacuum Receiver, TK-3924 (2006)	
	1,500 gal. Dry Receiver, TK-3934A (2006)	
	1,500 gal. Wet Receiver, TK-3934B (2006)	
<b>118 (RX39)</b>	2,000 gal. #1 Reactor, RX-3901 (2006)	Chemical reaction
	2,000 gal. #2 Reactor, RX-3902 (2006)	
	2,000 gal. #3 Reactor, RX-3903 (2006)	
<b>119 (ST39)</b>	4,000 gal. TPTC M/L Storage Tank, TK-3932 (2006)	Product/material storage
	15,000 gal. Storage Tank, TK-3933a,b,c (2006)	
<b>120 (TE39)</b>	Pipeline/Transport Equipment (2006)	Pumps, pipes, valves, etc.
<b>121 (WW39)</b>	1,000 gal. #1 Catch Basin, TK-3913 (2006)	Wastewater collection
	1,000 gal. #2 Catch Basin, TK-3912 (2006)	
	1,600 gal. Split Tank, TK-3955 (2006)	
	<b>Ribbon Blender / Dryer</b>	
<b>122 (DR39)</b>	Ribbon Blender/Dryer, BL-3927 (2006)	Product/material drying

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

Emission Point(s)	Process ID (Installation Date)	Process Description
123 (FS39)	Portable Milling Machine, ML-3963 (2006)	Product forming/shaping
124 (WW39)	50 gal. Surge Pot, TK-3927 (2006)	Wastewater collection
125 (TE39)	Pipeline/Transport Equipment (2006)	Pumps, pipes, valves, etc.
126 (DT39)	Drum/tote loading and unloading (2006)	Material handling
	<b>Flaker</b>	
127 (FS39)	Flaker, FL-3983 (2006)	Product forming/shaping
128 (RC39)	80 gal. Vacuum Receiver, TK-3981 (2006)	Product/material receiving
129 (RX39)	1,000 gal. Flaker Feed Reactor, RX-3980 (2006)	Chemical reaction
130 (TE39)	Pipeline/Transport Equipment (2006)	Pumps, pipes, valves, etc.
131 (DT39)	Drum/tote loading and unloading (2006)	Material handling

### PRODUCTION AREA B-39

**Control Equipment:** Thermal Oxidizer and scrubber (IR-7401), Dust Collectors DU-3928 and DU-3983. The following emission points will be required to be controlled by IR-7401 in accordance with Attachments A and B if emissions exceed 500 lbs/yr per process vent: 112, 113, 115, 116, 117, 118, 119, 122, 123, 124, 127, 128, and 129. Refer to Subsection B.7 and Section E.

### **APPLICABLE REGULATIONS:**

Consent Decree between United States of America and ATOFINA Chemicals, Inc. and its subsequent amendment.

401 KAR 59:010, *New process operations, which applies to emission points constructed on or after July 2, 1975.*

401 KAR 57:035, *National emission standard for equipment leaks (fugitive emission sources).*

401 KAR 57:040, *Equipment leaks of benzene*

40 CFR 61 Subpart J, *National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene*

40 CFR 61 Subpart V, *National Emission Standard for Equipment Leaks (Fugitive Emission Sources)*

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Note: The applicability of 401 KAR 57:035, 401 KAR 57:040, and 40 CFR 61 Subparts J and V is listed only to reference record keeping requirements of 40 CFR 61.110(c)(1).

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### 1. Operating Limitations:

- Pursuant to 401 KAR 63:020, Section 3, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.
- Refer to Section E regarding the use of the Thermal Oxidizer (IR-7401).

#### *Compliance Demonstration Method:*

- For compliance with 401 KAR 63:020, refer to Section D.
- Refer to Section E for the compliance demonstration method for operation of IR-7401.

### 2. Emission Limitations:

- Pursuant to 401 KAR 59:010, emissions of particulate matter for emission points 122 (DR39), 123 (FS39), and 127 (FS39) shall not exceed the allowable rate limit as calculated by the following equation using the process weight rate (in units of tons/hr).

For process rates up to 1,000 lbs/hr:

$$E = 2.34 \text{ lbs/hr}$$

For process rates greater than 1,000 lbs/hr up to 60,000 lbs/hr:

$$E = 3.59P^{0.62}$$

For the equation:

E = rate of emissions in lb/hr, and  
P = process weight rate in tons/hr.

- Pursuant to 401 KAR 59:010, Section 3, no person shall cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack which is equal to or greater than twenty (20) percent opacity, as prescribed by 40 CFR 60, Appendix A, Method 9.
- Refer to Section D for source-wide emission limitations regarding 401 KAR 63:020.
- Refer to Section E and Attachments A and B for emission limitations regarding the use of IR-7401.

#### *Compliance Demonstration Method:*

- The permittee shall assure compliance with the particulate matter emission limitation for this emission point by ensuring proper operation of the Dust Collectors DU-3928 and DU-3983. Proper dust collector operation shall be assured by fulfilling requirements specified under Subsections B.4, B.5, and B.7 (below). Compliance with the PM limits are demonstrated based on the following parameters used to calculate actual emissions for the affected emission point in Area B-39:

Emission Point	Process ID	Product	Maximum Throughput (lbs/hr)	Emission factor (lbs/lb)	Control Efficiency
122 (DR39)	BL-3927	Tetraphenyl Tin DRY	134	1.33 E-2	99.9%
		Triphenyltin Hydroxide (TPTH)	1,250	1.53 E-2	99.9%
123 (FS39)	ML-3963	Triphenyl Phosphine Flake	274	6.52 E-3	99.9%
127 (FS39)	FL-3983	Triphenyl Phosphine Flake	274	6.52 E-3	99.9%

## **SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS**

- b. The permittee shall assure compliance with the opacity limitations for each emission point listed in Subsection B.2.a. (above) by conducting visible emission observations in accordance with Section D, Opacity Monitoring for Emission Point.
- c. Refer to Section D for the compliance demonstration method for source-wide emission limits.
- d. Refer to Section E and Attachments A and B for compliance with emission limitations regarding the use of IR-7401.

### **3. Testing Requirements:**

- a. Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing in accordance with EPA Reference Method 5 (or equivalent), as referenced in 401 KAR 50:015, Section 1, shall be conducted as required by the Division. Refer to Section G(d)6.
- b. Refer to Section D.
- c. Refer to Section E.

### **4. Specific Monitoring Requirements:**

- a. The permittee shall monitor the opacity of visible emissions for each affected emission point not directed to IR-7401. Refer to Section D., Opacity Monitoring of Emission Point.
- b. The permittee shall monitor the operating parameters at the specified frequency for each control device. Refer to the respective control device table in Subsection B. 7 (below).

### **5. Specific Recordkeeping Requirements:**

- a. Refer to Section E.
- b. The permittee shall record and maintain such records of the following information:
  - i. The results of the annual inspections performed on dust collectors DU-3928 and DU-3983
  - ii. Pursuant to 40 CFR 61.246(i), the permittee shall maintain records of the amount of benzene used or produced by this emission point on an annual basis.
  - iii. Records of the visual observations.
  - iv. monitoring and operating parameters for control equipment as indicated in Subsection B.7 (below).
- c. Refer to Section F.2 regarding retention time of records.

### **6. Specific Reporting Requirements:**

Refer to Sections F.5 and F.7.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### 7. Specific Control Equipment Operating Conditions:

#### Control Equipment Area B-39

Emission Point(s)	Control Equipment	Operating Parameters	Comments
122 (DR39) <i>BL-3927</i> , 123 (FS39) <i>ML-3963</i>	Dust Collector, DU-3928 (1978)	Pressure Drop $\leq 15''$ H <sub>2</sub> O (record daily)	Exceedence of operating parameters shall be reported and/or repaired in accordance with Sections F.6. and F.8.
127 (FS39) <i>FL-3983</i>	Dust Collector, DU-3983 (1978)	Pressure Drop $\leq 15''$ H <sub>2</sub> O (record daily)	Exceedence of operating parameters shall be reported and/or repaired in accordance with Sections F.6. and F.8.
See Section E.	Thermal Oxidizer (IR-7401)	See Section E.	See Section E.

- a. Dust Collectors DU-3928, and DU-3983 shall be operated in accordance with the manufacturer's specifications and/or standard recommended operating procedures at all times the affected emission point is in operation. The dust collectors shall be inspected on an annual basis for proper operation of the following:
  1. Filters - replace as needed
  2. Gaskets and Seals
  3. Filter cleaning mechanism
- b. Reports shall developed and reported in accordance with 40 CFR 63.1368.
- c. The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the emission points are in operation but the associated air pollution control equipment is not.

### 8. Alternate Operating Scenarios: None

### 9. Compliance Schedule:

The issuance of this permit serves as the construction permit for Process Area 39 as a new source. Operation of this unit is contingent upon all non-fugitive sources of VOCs in this Area being connected to the thermal oxidizer (IR-7401) unless emissions are less than 500 lbs/yr per vent (calculated on a 12-month rolling basis) in accordance with the Consent Decree and its Amendment. Refer to Attachments A and B.

### 10. Compliance Certification Requirements:

Refer to Section F.9.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### PRODUCTION AREA B-48

Emission Point(s)	Process ID (Installation Date)	Process Description
132 (HT48)	4,000 gal. #1 Methyltin Split Tank, TK-4810 (1998)	Interim storage
	400 gal. DBTC Hot Water Tank, TK-4847 (1975)	
	3,000 gal. #5 Vessel Split Tank, TK-4807 (1997)	
	1,500 gal. #2 Vessel Split Tank, TK-4809 (1975)	
	4,000 gal. #2 Filter Feed Tank, TK-4811 (1975)	
	4,000 gal. #4 Filter Feed Tank, TK-4818 (1996)	
	4,000 gal. #3 Filter Feed Tank, TK-4819 (1979)	
	1,000 gal. Glycol Hold Tank, TK-4836 (1996)	
	25 gal. Heptane Hold Tank, TK-4850 (1996 )	
	810 gal. #1 Receiver Tank, WT-4835 (1984)	
	1,500 gal. #3 Reactor Vacuum Receiver, WT-4838 (1975)	
	1,500 gal. 60/40 As Is Weigh Tank, WT-4840 (N/A)	
	Seal Liquid Accumulator, TK-4870 (1998)	
	4,000 gal. Filter Feed Tank, TK4812 (N/A)	
133 (RC55)	4,000 gal. Methyltin Split Tank, TK-4815 (1999)	Interim storage
134 (MT48)	8,000 gal. Hold Tank, TK-4813 (1996)	Interim storage
135 (RC48)	1,000 gal. #1 Receiver Tank, TK-4834 (1994)	Product/material receiving
	1,000 gal. #2 Receiver Tank, TK-4837 (1986)	
	1,000 gal. #5 Vac. Receiver Tank, TK-4844 (1988)	
	250 gal. Cooling Water Surge Pot, TK-4861 (1997)	
136 (TE48)	Pipeline/Transport Equipment (N/A)	Pumps, pipes, valves, etc.
137 (RX48)	3,000 gal. #1 Reactor, RX-4801 (1974)	Chemical reaction
	3,000 gal. #2 Reactor, RX-4802 (1977)	
	3,000 gal. #3 Reactor, RX-4803 (1974)	
	3,000 gal. #4 Reactor, RX-4804 (1971)	
	6,000 gal. #5 Reactor, RX-4805 (1995)	
138 (HT55)	4,000 gal. Reactor, TK-4814 (1999)	Chemical reaction



## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

Emission Point(s)	Process ID (Installation Date)	Process Description
139 (PF48)	Portable Niagara Filter, FI-4856 (1975)	Product filtering
	Portable Niagara Filter, FI-4859 (1956)	
	Portable Niagara Filter, FI-4860 (1967)	
	Portable Niagara Filter, FI-4862 (1995)	
	Filter, FI-4816 (1998)	
140 (ST48)	4,000 gal. Mono Solution Tank, RX-4868 (1973)	Material handling/storage
	1,000 gal. #4 Vacuum Receiver, TK-4841 (1989)	
	6,000 gal. DBTC Storage/Weigh Tank, TK-4848 (1952)	
141 (DT32)	Drum/tote loading and unloading	Material handling

**Control Equipment:** Packed bed scrubber (CO-4867). Refer to Subsection B-7 (below).

### **APPLICABLE REGULATIONS:**

Consent Decree between United States of America and ATOFINA Chemicals, Inc. and its subsequent amendment.

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

### **1. Operating Limitations:**

- Refer to Section D for 401 KAR 63:020 limits and the compliance demonstration method.
- To preclude the applicability of Regulation 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality for significant emissions increase of Volatile Organic Compounds (VOCs), the maximum annual production of plastic stabilizers (Methyl, Butyl or Octyl) shall not exceed 80,000,000 pounds during any 12 consecutive months. A list of plastic stabilizers has been included in Table A (below).
- Manufacture of organic solvent-based stabilizers shall be discontinued in accordance with the conditions of the Consent Decree between the United States of America and ATOFINA Chemical, Inc. (Appendix A) and its subsequent amendment (Appendix B).
- Production of plastic stabilizers shall include, but is not limited to, those solvent-free products listed in Table A below:

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

<b>TABLE A</b> <b>B-48 Product List</b>	
<b>STABILIZERS/CATALYSTS</b>	
T-1	T-890S (T 890 TFE)
T-12	T-890
PA 4062	Thermolite 66
PA4076	Thermolite 108 (PA-1739 FA)
PA4077	Thermolite 20 (T-120)
PA4080	Thermolite 133
PA4089	Thermolite 137
CNF-1173	Thermolite 139
CNF-1399 (PA-1889)	Thermolite 175
CNF-1448	Thermolite 176
CNF-266	Thermolite 176c
DM-9802	Thermolite 20
PA-1121	Thermolite 31
DM-9943	Thermolite 31 Super
Fastcat 4102	Thermolite 31 TFE
Fastcat 4233	Thermolite 31 Super TFE
PA-1666 (CNF-1309)(T-390)	Thermolite 310
PA-1776 (CNF-1550)	Thermolite 340
PA-1796	Thermolite 892 w/2-EHMA*
PA-2162 (CNF-1496)	Thermolite 831
PA-4048	Thermolite 380
PI-1001A	Thermolite 197
Thermolite 140	Thermolite 190
Thermolite 161	<b>STABILIZER INTERMEDIATES</b>
Thermolite 191	Monobutyltin Trichloride 60/40
Thermolite 192	Dibutyltin Dichloride (Fastcat 4210)
Thermolite 290	PA-2283 (CNF-1587)
Thermolite 300	

### ***Compliance Demonstration Method:***

The permittee shall maintain records of the type (organic based vs non-organic based) and monthly production of plastic stabilizers. Refer to Subsections B.4 and B.5, below. The compliance with annual limits shall be based on a rolling 12 month total. Within 30 days following the conclusion of each month, the rolling 12 month total shall be calculated for the past 12 months.

## **2. Emission Limitations:**

Refer to Section D for source-wide emission limitations regarding 401 KAR 63:020.

### ***Compliance Demonstration Method:***

For compliance with 401 KAR 63:020, refer to Section D.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### 3. Testing Requirements:

Refer to Section D.

### 4. Specific Monitoring Requirements:

- The permittee shall monitor the operating parameters at the specified frequency for each control device. Refer to the respective control device table in Subsection B. 7 (below).
- The permittee shall monitor the production of plastic stabilizers on a monthly basis.
- Refer to Section E.

### 5. Specific Recordkeeping Requirements:

- The permittee shall record and maintain such records of the following information:
  - The results of the annual inspections performed on packed bed scrubber CO-4867.
  - The monthly production rate for plastic stabilizers produced.
  - monitoring and operating parameters for control equipment as indicated in Subsection B.7 (below).
- Refer to Section F.2 regarding retention time of records.
- Refer to Section E.

### 6. Specific Reporting Requirements:

- The permittee shall report the rolling 12 month production rate for plastic stabilizers produced. These reports shall be submitted on a semi-annual basis or at the request of the Division.
- Refer to Sections F.5 and F.7.

### 7. Specific Control Equipment Operating Conditions:

#### Control Equipment Area B-48

Emission Point(s)	Control Equipment	Operating Parameters (check once per day)	Comments
<b>132 (HT48)</b> TK-4807, TK-4810, TK-4819 <b>133 (RC55)</b> TK-4815 <b>137 (RX48)</b> RX-4802, RX-4803, RX-4804, RX- 4805 <b>138 (HT55)</b> TK-4814	Packed-Bed Scrubber, Clean Gas Systems Model Unit Size 18, CO-4867 (1996)	Water Flowrate $\geq$ 20 GPM Pressure Drop $\leq$ 2.5" H <sub>2</sub> O pH $\geq$ 8.0	a) Refer to Section I b) Exceedence of manufacturer operating parameters shall be reported and/or repaired in accordance with Section F.6. and F.8.

- Scrubber CO-4867 shall be operated in accordance with the manufacturer's standard recommended operating procedures at all times the emission point is in operation.
- The scrubber shall be inspected on an annual basis. Preventive maintenance shall be performed in accordance with manufacturer's specifications. The scrubber shall be inspected on an annual basis for proper operation of the following:
  - Scrubber liquid pump(s)
  - Scrubber liquid spray nozzles
  - Scrubber internals
  - pH instrumentation

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- c. The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the emission points are in operation but the associated air pollution control equipment is not. For purposes of emission calculations, during any time interval that the control device(s) is(are) inoperative, the control efficiency will be assumed to be zero.

8. **Alternate Operating Scenarios:** None

9. **Compliance Schedule:** None

10. **Compliance Certification Requirements:**  
Refer to Section F.9.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### TIN RECOVERY SYSTEM AREA B-52

Emission Point(s)	Process ID (Installation Date)	Process Description
142 (X5-IR52)	TRS Incinerator (Installed 1979)  <b>Description:</b> Two Stage Unit with charging capacity of 4000 lbs./hr <b>Control Equipment:</b> Refer to the Control Equipment under Section B.7. for the Tin Recovery System, Area B-52	Waste reduction
143 (HY52)	750 gal. Hydropulper, HY-5220 (1979)	Material handling/storage
144 (WW52)	Collection Basin, SU-5220	Collection Basin
	Collection Basin, CB-5230	
	Collection Basin, CB-5240	
145 (TE52)	Fugitives - Pipeline/Transport Equipment (1979)	Pumps, pipes, valves, etc.

**Control Equipment:** Jet-Aire JA-306H baghouse, DU-5217A/B (1986), Clean Gas Systems Multiscrub V venturi scrubber, CO-5240 (1996), and Thermal Oxidizer and Scrubber (IR-7401).

### **APPLICABLE REGULATIONS:**

401 KAR 59:020, *New incinerators* applies to emission units with a charging rate of fifty tons per day or less constructed on or after April 9, 1972.

401 KAR 60:005, Section 3(l), incorporating by reference 40 CFR 60.110b to 60.117b (Subpart Kb), *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984.*

40 CFR 61 Subpart E - *National Emission Standard for Mercury*

40 CFR 63 Subpart EEE-*National Emissions Standards for Hazardous Air Pollutants from Hazardous Waste Combustors.*

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Note: Notifications required under 40 CFR 63 Subpart EEE should be made to the USEPA Administrator and the Division for Air Quality.

### **1. Operating Limitations:**

a. 40 CFR 63 Subpart EEE - operating requirements:

Pursuant to 40 CFR 63.1206(c), the permittee shall comply with the operating requirements stated below:

- General operating requirements [40 CFR 63.1206(c)(1)] — (1) *General.* (i) The permittee must operate only under the operating requirements specified in the Documentation of Compliance under 40 CFR 63.1211(c) or the Notification of Compliance under 40 CFR 63.1207(j) and 63.1210(b), except:

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- (A) During performance tests under approved test plans according to 40 CFR 63.1207(e), (f), and (g), and
- (B) Under the conditions of 40 CFR 63.1206 (b)(1)(i) or (ii);
  - (ii) The Documentation of Compliance and the Notification of Compliance must contain operating requirements including, but not limited to, the operating requirements in 40CFR 63.1206 and 63.1209;
  - (iii) Failure to comply with the operating requirements is failure to ensure compliance with the emission standards of this subpart;
  - (iv) Operating requirements in the Notification of Compliance are applicable requirements for purposes of 40 CFR parts 70 and 71;
  - (v) The operating requirements specified in the Notification of Compliance will be incorporated in the title V permit.
- 2. Operating requirements during startups, shutdowns, and malfunctions [40 CFR 63.1206(c)(2)] – (2) *Startup, shutdown, and malfunction plan.* (i) The permittee is subject to the startup, shutdown, and malfunction plan requirements of 40 CFR 63.6(e)(3).
  - (ii) If the permittee elects to comply with 40 CFR 270.235(a)(1)(iii), 270.235(a)(2)(iii), or 270.235(b)(1)(ii) to address RCRA concerns that the permittee minimize emissions of toxic compounds from startup, shutdown, and malfunction events (including releases from emergency safety vents):
    - (A) The startup, shutdown, and malfunction plan must include a description of potential causes of malfunctions, including releases from emergency safety vents, that may result in significant releases of hazardous air pollutants, and actions the source is taking to minimize the frequency and severity of those malfunctions.
    - (B) The permittee must submit the startup, shutdown, and malfunction plan to the Administrator for review and approval.
      - (1) *Approval procedure.* The Administrator will notify the permittee of approval or intention to deny approval of the startup, shutdown, and malfunction plan within 90 calendar days after receipt of the original request and within 60 calendar days after receipt of any supplemental information that the permittee submits. Before disapproving the plan, the Administrator will notify the permittee of the Administrator's intention to disapprove the plan together with:
        - (i) Notice of the information and findings on which intended disapproval is based; and

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(ii) Notice of opportunity for the permittee to present additional information to the Administrator before final action on disapproval of the plan. At the time the Administrator notifies the permittee of intention to disapprove the plan, the Administrator will specify how much time the permittee will have after being notified on the intended disapproval to submit additional information.

(2) *Responsibility of owners and operators.* The permittee is responsible for ensuring the submittal of any supplementary and additional information supporting the permittee's plan in a timely manner to enable the Administrator to consider whether to approve the plan. Neither the permittee's submittal of the plan, nor the Administrator's failure to approve or disapprove the plan, relieves the permittee of the responsibility to comply with the provisions of this subpart.

(C) *Changes to the plan that may significantly increase emissions.* (1) The permittee must request approval in writing from the Administrator within 5 days after making a change to the startup, shutdown, and malfunction plan that may significantly increase emissions of hazardous air pollutants.

(2) To request approval of such changes to the startup, shutdown, and malfunction plan, the permittee must follow the procedures provided by 40 CFR 63.1206(c)(2)(ii)(B) for initial approval of the plan.

(iii) The permittee must identify in the plan a projected oxygen correction factor based on normal operations to use during periods of startup and shutdown.

(iv) The permittee must record the plan in the operating record.

(v) *Operating under the startup, shutdown, and malfunction plan.* (A) *Compliance with AWFCO requirements during malfunctions.* (1) During malfunctions, the automatic waste feed cutoff requirements of 40 CFR 63.1206(c)(3) continue to apply, except for 40 CFR 63.1206(c)(3)(v) and (c)(3)(vi). If the permittee exceeds a part 63, Subpart EEE, of this chapter emission standard monitored by a CEMS or operating limit specified under 40 CFR 63.1209, the automatic waste feed cutoff system must immediately and automatically cutoff the hazardous waste feed, except as provided by 40 CFR 63.1206(c)(3)(viii). If the malfunction itself prevents immediate and automatic cutoff of the hazardous waste feed, however, the permittee must cease feeding hazardous waste as quickly as possible.

(2) Although the automatic waste feed cutoff requirements continue to apply during a malfunction, an exceedance of an emission standard monitored by a CEMS or operating limit specified under 40 CFR 63.1209 is not a violation of this subpart if the permittee takes the corrective measures prescribed in the startup, shutdown, and malfunction plan.

(3) *Excessive exceedances during malfunctions.* For each set of 10 exceedances of an emission standard or operating requirement while hazardous waste remains in the

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combustion chamber (*i.e.*, when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, the permittee must:

(i) Within 45 days of the 10th exceedance, complete an investigation of the cause of each exceedance and evaluation of approaches to minimize the frequency, duration, and severity of each exceedance, and revise the startup, shutdown, and malfunction plan as warranted by the evaluation to minimize the frequency, duration, and severity of each exceedance; and

(ii) Record the results of the investigation and evaluation in the operating record, and include a summary of the investigation and evaluation, and any changes to the startup, shutdown, and malfunction plan, in the excess emissions report required under 40 CFR 63.10(e)(3).

(B) *Compliance with AWFCO requirements when burning hazardous waste during startup and shutdown.* (1) If the permittee feeds hazardous waste during startup or shutdown, the permittee must include waste feed restrictions (*e.g.*, type and quantity), and other appropriate operating conditions and limits in the startup, shutdown, and malfunction plan.

(2) The permittee must interlock the operating limits the permittee establishes under 40 CFR 63.1206 (c)(2)(v)(B)(1) with the automatic waste feed cutoff system required under 40 CFR 63.1206(c)(3), except for 40 CFR 63.1206 (c)(3)(v) and (c)(3)(vi).

(3) When feeding hazardous waste during startup or shutdown, the automatic waste feed cutoff system must immediately and automatically cutoff the hazardous waste feed if the permittee exceeds the operating limits the permittee establishes under 40 CFR 63.1206 (c)(2)(v)(B)(1), except as provided by 40 CFR 63.1206 (c)(3)(viii).

(4) Although the automatic waste feed cutoff requirements of this paragraph apply during startup and shutdown, an exceedance of an emission standard or operating limit is not a violation of this subpart if the permittee complies with the operating procedures prescribed in the startup, shutdown, and malfunction plan.

3. Automatic waste feed cutoff [40 CFR 63.1206(c)(3)] – (3) *Automatic waste feed cutoff (AWFCO)*—(i) *General.* Upon the compliance date, the permittee must operate the hazardous waste combustor with a functioning system that immediately and automatically cuts off the hazardous waste feed, except as provided by 40 CFR 63.1206 (c)(3)(viii):

(A) When any of the following are exceeded: Operating parameter limits specified under 40 CFR 63.1209; an emission standard monitored by a CEMS; and the allowable combustion chamber pressure;

(B) When the span value of any CMS detector, except a CEMS, is met or exceeded;



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(C) Upon malfunction of a CMS monitoring an operating parameter limit specified under 40 CFR 63.1209 or an emission level; or

(D) When any component of the automatic waste feed cutoff system fails.

(ii) *Ducting of combustion gases.* During an AWFCO, the permittee must continue to duct combustion gases to the air pollution control system while hazardous waste remains in the combustion chamber (*i.e.*, if the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated).

(iii) *Restarting waste feed.* The permittee must continue to monitor during the cutoff the operating parameters for which limits are established under 40 CFR 63.1209 and the emissions required under that section to be monitored by a CEMS, and the permittee must not restart the hazardous waste feed until the operating parameters and emission levels are within the specified limits.

(iv) *Failure of the AWFCO system.* If the AWFCO system fails to automatically and immediately cutoff the flow of hazardous waste upon exceedance of parameter required to be interlocked with the AWFCO system under 40 CFR 63.1206 (c)(3)(i), the permittee has failed to comply with the AWFCO requirements of 40 CFR 63.1206 (c)(3).

(v) *Corrective measures.* If, after any AWFCO, there is an exceedance of an emission standard or operating requirement, irrespective of whether the exceedance occurred while hazardous waste remained in the combustion chamber (*i.e.*, whether the hazardous waste residence time has transpired since the hazardous waste feed cutoff system was activated), the permittee must investigate the cause of the AWFCO, take appropriate corrective measures to minimize future AWFCOs, and record the findings and corrective measures in the operating record.

(vi) *Excessive exceedance reporting.* (A) For each set of 10 exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (*i.e.*, when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, the permittee must submit to the Administrator a written report within 5 calendar days of the 10th exceedance documenting the exceedances and results of the investigation and corrective measures taken.

(B) On a case-by-case basis, the Administrator may require excessive exceedance reporting when fewer than 10 exceedances occur during a 60-day block period.

(vii) *Testing.* The AWFCO system and associated alarms must be tested at least weekly to verify operability, unless the permittee documents in the operating record that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, the permittee must conduct operability

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testing at least monthly. The permittee must document and record in the operating record AWFCO operability test procedures and results.

(viii) *Ramping down waste feed.* (A) The permittee may ramp down the waste feedrate of pumpable hazardous waste over a period not to exceed one minute, except as provided by 40 CFR 63.1206 (c)(3)(viii)(B). If the permittee elects to ramp down the waste feed, the permittee must document ramp down procedures in the operating and maintenance plan. The procedures must specify that the ramp down begins immediately upon initiation of automatic waste feed cutoff and the procedures must prescribe a bona fide ramping down. If an emission standard or operating limit is exceeded during the ramp down, the permittee has failed to comply with the emission standards or operating requirements of this subpart.

(B) If the automatic waste feed cutoff is triggered by an exceedance of any of the following operating limits, the permittee may not ramp down the waste feed cutoff: Minimum combustion chamber temperature, maximum hazardous waste feedrate, or any hazardous waste firing system operating limits that may be established for the permittee's combustor.

4. ESV openings [40 CFR 63.1206(c)(4)] – (4) *ESV openings*—(i) *Failure to meet standards.* If an emergency safety vent (ESV) opens when hazardous waste remains in the combustion chamber (*i.e.*, when the hazardous waste residence time has not expired) during an event other than a malfunction as defined in the startup, shutdown, and malfunction plan such that combustion gases are not treated as during the most recent comprehensive performance test (*e.g.*, if the combustion gas by-passes any emission control device that was operating during the performance test), the permittee must document in the operating record whether the permittee remains in compliance with the emission standards of this subpart considering emissions during the ESV opening event.

(ii) *ESV operating plan.* (A) The permittee must develop an ESV operating plan, comply with the operating plan, and keep the plan in the operating record.

(B) The ESV operating plan must provide detailed procedures for rapidly stopping the waste feed, shutting down the combustor, and maintaining temperature and negative pressure in the combustion chamber during the hazardous waste residence time, if feasible. The plan must include calculations and information and data documenting the effectiveness of the plan's procedures for ensuring that combustion chamber temperature and negative pressure are maintained as is reasonably feasible.

(iii) *Corrective measures.* After any ESV opening that results in a failure to meet the emission standards as defined in 40 CFR 63.1206(c)(4)(i), the permittee must investigate the cause of the ESV opening, take appropriate corrective measures to minimize such future ESV openings, and record the findings and corrective measures in the operating record.

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- (iv) *Reporting requirements.* The permittee must submit to the Administrator a written report within 5 days of an ESV opening that results in failure to meet the emission standards of this subpart (as determined in 40 CFR 63.1206(c)(4)(i)) documenting the result of the investigation and corrective measures taken.
5. Combustion system leaks [40 CFR 63.1206(c)(5)] – (5) *Combustion system leaks.* (i) Combustion system leaks of hazardous air pollutants must be controlled by:
- (A) Keeping the combustion zone sealed to prevent combustion system leaks; or
  - (B) Maintaining the maximum combustion zone pressure lower than ambient pressure using an instantaneous monitor; or
  - (C) Upon prior written approval of the Administrator, an alternative means of control to provide control of combustion system leaks equivalent to maintenance of combustion zone pressure lower than ambient pressure; or
  - (D) Upon prior written approval of the Administrator, other technique(s) which can be demonstrated to prevent fugitive emissions without use of instantaneous pressure limits; and
- (ii) The permittee must specify in the performance test workplan and Notification of Compliance the method that will be used to control combustion system leaks. If the permittee controls combustion system leaks by maintaining the combustion zone pressure lower than ambient pressure using an instantaneous monitor, the permittee must also specify in the performance test workplan and Notification of Compliance the monitoring and recording frequency of the pressure monitor, and specify how the monitoring approach will be integrated into the automatic waste feed cutoff system.
6. Operator training and certification [40 CFR 63.1206(c)(6)] – (6) *Operator training and certification.* (i) The permittee must establish training programs for all categories of personnel whose activities may reasonably be expected to directly affect emissions of hazardous air pollutants from the source. Such persons include, but are not limited to, chief facility operators, control room operators, continuous monitoring system operators, persons that sample and analyze feedstreams, persons that manage and charge feedstreams to the combustor, persons that operate emission control devices, and ash and waste handlers. Each training program shall be of a technical level commensurate with the person's job duties specified in the training manual. Each commensurate training program shall require an examination to be administered by the instructor at the end of the training course. Passing of this test shall be deemed the “certification” for personnel, except that, for control room operators, the training and certification program shall be as specified in 40 CFR 63.1206(c)(6)(iii) through (c)(6)(vi).
- (ii) The permittee must ensure that the source is operated and maintained at all times by persons who are trained and certified to perform these and any other duties that may

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affect emissions of hazardous air pollutants. A certified control room operator must be on duty at the site at all times the source is in operation.

(iii) Hazardous waste incinerator control room operators must:

(A) Be trained and certified under a site-specific, source-developed and implemented program that meets the requirements of 40 CFR 63.1206(c)(6)(v); or

(B) Be trained under the requirements of, and certified under, the American Society of Mechanical Engineers Standard Number QHO-1-1994 and QHO-1a-1996 Addenda (incorporated by reference—see 40 CFR 63.14(e)). If the permittee chooses to use the ASME program:

(1) Control room operators must, prior to the compliance date, achieve provisional certification, and must submit an application to ASME and be scheduled for the full certification exam. Within one year of the compliance date, control room operators must achieve full certification;

(2) New operators and operators of new sources must, before assuming their duties, achieve provisional certification, and must submit an application to ASME, and be scheduled for the full certification exam. Within one year of assuming their duties, these operators must achieve full certification; or

(C) Be trained and certified under a State program.

(iv) Cement kiln and lightweight aggregate kiln control room operators must be trained and certified under:

(A) A site-specific, source-developed and implemented program that meets the requirements of 40 CFR 63.1206(c)(6)(v); or

(B) A State program.

(v) Site-specific, source developed and implemented training programs for control room operators must include the following elements:

(A) Training on the following subjects:

(1) Environmental concerns, including types of emissions;

(2) Basic combustion principles, including products of combustion;

(3) Operation of the specific type of combustor used by the operator, including proper startup, waste firing, and shutdown procedures;

(4) Combustion controls and continuous monitoring systems;

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- (5) Operation of air pollution control equipment and factors affecting performance;
  - (6) Inspection and maintenance of the combustor, continuous monitoring systems, and air pollution control devices;
  - (7) Actions to correct malfunctions or conditions that may lead to malfunction;
  - (8) Residue characteristics and handling procedures; and
  - (9) Applicable Federal, state, and local regulations, including Occupational Safety and Health Administration workplace standards; and
- (B) An examination designed and administered by the instructor; and
- (C) Written material covering the training course topics that may serve as reference material following completion of the course.
- (vi) To maintain control room operator qualification under a site-specific, source developed and implemented training program as provided by 40 CFR 63.1206(c)(6)(v), control room operators must complete an annual review or refresher course covering, at a minimum, the following topics:
- (A) Update of regulations;
  - (B) Combustor operation, including startup and shutdown procedures, waste firing, and residue handling;
  - (C) Inspection and maintenance;
  - (D) Responses to malfunctions or conditions that may lead to malfunction; and
  - (E) Operating problems encountered by the operator.
- (vii) The permittee must record the operator training and certification program in the operating record.
7. Operation and maintenance plan [40 CFR 63.1206(c)(7)] – (7) *Operation and maintenance plan*—(i) *General*. (A) The permittee must prepare and at all times operate according to an operation and maintenance plan that describes in detail procedures for operation, inspection, maintenance, and corrective measures for all components of the combustor, including associated pollution control equipment, that could affect emissions of regulated hazardous air pollutants.
- (B) The plan must prescribe how the permittee will operate and maintain the combustor in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels achieved during the comprehensive performance test.

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(C) This plan ensures compliance with the operation and maintenance requirements of 40 CFR 63.6(e) and minimizes emissions of pollutants, automatic waste feed cutoffs, and malfunctions.

(D) The permittee must record the plan in the operating record.

(ii) *Bag leak detection system requirements for baghouses at lightweight aggregate kilns and incinerators.* If the permittee owns or operates a hazardous waste incinerator or hazardous waste burning lightweight aggregate kiln equipped with a baghouse (fabric filter), the permittee must continuously operate a bag leak detection system that meets the specifications and requirements of 40 CFR 63.1206(c)(7)(ii)(A) and the permittee must comply with the corrective measures requirements of 40 CFR 63.1206(c)(7)(ii)(B):

(A) *Bag leak detection system specification and requirements.* (1) The bag leak detection system must be certified by the manufacturer to be capable of continuously detecting and recording particulate matter emissions at concentrations of 1.0 milligrams per actual cubic meter unless the permittee demonstrates, pursuant to procedures in 40 CFR 63.1209(a)(1), that a higher sensitivity would adequately detect bag leaks;

(2) The bag leak detection system shall provide output of relative particulate matter loadings;

(3) The bag leak detection system shall be equipped with an alarm system that will sound an audible alarm when an increase in relative particulate loadings is detected over a preset level;

(4) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the U.S. Environmental Protection Agency or, in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system;

(5) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time;

(6) Following initial adjustment, the permittee must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in the operation and maintenance plan required under 40 CFR 63.1206(c)(7)(i). The permittee must not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365 day period unless such adjustment follows a complete baghouse inspection which demonstrates the baghouse is in good operating condition;

(7) For negative pressure or induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector shall be installed downstream of the baghouse and upstream of any wet acid gas scrubber; and

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(8) Where multiple detectors are required, the system's instrumentation and alarm system may be shared among the detectors.

(B) *Bag leak detection system corrective measures requirements.* The operating and maintenance plan required by 40 CFR 63.1206(c)(7)(i) must include a corrective measures plan that specifies the procedures the permittee will follow in the case of a bag leak detection system alarm. The corrective measures plan must include, at a minimum, the procedures used to determine and record the time and cause of the alarm as well as the corrective measures taken to correct the control device malfunction or minimize emissions as specified below. Failure to initiate the corrective measures required by this paragraph is failure to ensure compliance with the emission standards in this subpart.

(1) The permittee must initiate the procedures used to determine the cause of the alarm within 30 minutes of the time the alarm first sounds; and

(2) The permittee must alleviate the cause of the alarm by taking the necessary corrective measure(s), which may include, but are not to be limited to, the following measures:

(i) Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions;

(ii) Sealing off defective bags or filter media;

(iii) Replacing defective bags or filter media, or otherwise repairing the control device;

(iv) Sealing off a defective baghouse compartment;

(v) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system; or

(vi) Shutting down the combustor.

***Compliance demonstration methods for operating and emission standards [40 CFR 63 Subpart EEE]:***

Pursuant to 40 CFR 63.1206(b), the permittee shall determine compliance with the operating and emissions standards by the methods and procedures required below.

1. Methods for determining compliance [40 CFR 63.1206(b)(2)] – (2) *Methods for determining compliance.* The Administrator will determine compliance with the emission standards of this subpart as provided by 40 CFR 63.6(f)(2). Conducting performance testing under operating conditions representative of the extreme range of normal conditions is consistent with the requirements of 40 CFR 63.6(f)(2)(iii)(B) and 63.7(e)(1) to conduct performance testing under representative operating conditions.

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2. Finding of compliance [40 CFR 63.1206(b)(3)] – (3) *Finding of compliance*. The Administrator will make a finding concerning compliance with the emission standards and other requirements of this subpart as provided by 40 CFR 63.6(f)(3).
3. Extension of compliance with emission standards [40 CFR 63.1206(b)(4)] – (4) *Extension of compliance with emission standards*. The Administrator may grant an extension of compliance with the emission standards of this subpart as provided by 40 CFR 63.6(i) and 63.1213.
4. Changes in design, operation, or maintenance [40 CFR 63.1206(b)(5)] – (5) *Changes in design, operation, or maintenance*—(i) *Changes that may adversely affect compliance*. If the permittee plans to change (as defined in 40 CFR 63.1206(b)(5)(iii)) the design, operation, or maintenance practices of the source in a manner that may adversely affect compliance with any emission standard that is not monitored with a CEMS:
  - (A) *Notification*. The permittee must notify the Administrator at least 60 days prior to the change, unless the permittee documents circumstances that dictate that such prior notice is not reasonably feasible. The notification must include:
    - (1) A description of the changes and which emission standards may be affected; and
    - (2) A comprehensive performance test schedule and test plan under the requirements of 40 CFR 63.1207(f) that will document compliance with the affected emission standard(s);
  - (B) *Performance test*. The permittee must conduct a comprehensive performance test under the requirements of 40 CFR 63.1207(f)(1) and (g)(1) to document compliance with the affected emission standard(s) and establish operating parameter limits as required under 40 CFR 63.1209, and submit to the Administrator a Notification of Compliance under 40 CFR 63.1207(j) and 63.1210(d); and
  - (C) *Restriction on waste burning*. (1) Except as provided by 40 CFR 63.1206(b)(5)(i)(C)(2), after the change and prior to submitting the notification of compliance, the permittee must not burn hazardous waste for more than a total of 720 hours (renewable at the discretion of the Administrator) and only for the purposes of pretesting or comprehensive performance testing. Pretesting is defined at 40 CFR 63.1207(h)(2)(i) and (ii).
- (2) The permittee may petition the Administrator to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. The permittee must specify operating requirements, including limits on operating parameters, that the permittee determines will ensure compliance with the emission standards of this subpart based on available information. The Administrator will review, modify as necessary, and approve if warranted the interim operating requirements.



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- (ii) *Changes that will not affect compliance.* If the permittee determines that a change will not adversely affect compliance with the emission standards or operating requirements, the permittee must document the change in the operating record upon making such change. The permittee must revise as necessary the performance test plan, Documentation of Compliance, Notification of Compliance, and start-up, shutdown, and malfunction plan to reflect these changes.
- (iii) *Definition of “change.”* For purposes of 40 CFR 63.1206(b)(5), “change” means any change in design, operation, or maintenance practices that were documented in the comprehensive performance test plan, Notification of Compliance, or startup, shutdown, and malfunction plan.]
5. Compliance with the carbon monoxide and hydrocarbon emission standards [40 CFR 63.1206(b)(6)] – [(6) *Compliance with the carbon monoxide and hydrocarbon emission standards.* This paragraph applies to sources that elect to comply with the carbon monoxide and hydrocarbon emissions standards under 40 CFR 63.1203 through 63.1205 by documenting continuous compliance with the carbon monoxide standard using a continuous emissions monitoring system and documenting compliance with the hydrocarbon standard during the destruction and removal efficiency (DRE) performance test or its equivalent.
- (i) If a DRE test performed pursuant to 40 CFR 63.1207(c)(2) is acceptable as documentation of compliance with the DRE standard, the permittee may use the highest hourly rolling average hydrocarbon level achieved during the DRE test runs to document compliance with the hydrocarbon standard. An acceptable DRE test is any test for which the data and results are determined to meet quality assurance objectives (on a site-specific basis) such that the results adequately demonstrate compliance with the DRE standard.
- (ii) If during this acceptable DRE test the permittee did not obtain hydrocarbon emissions data sufficient to document compliance with the hydrocarbon standard, the permittee must either:
- (A) Perform, as part of the performance test, an “equivalent DRE test” to document compliance with the hydrocarbon standard. An equivalent DRE test is comprised of a minimum of three runs each with a minimum duration of one hour during which the permittee operates the combustor as close as reasonably possible to the operating parameter limits that the permittee established based on the initial DRE test. The permittee must use the highest hourly rolling average hydrocarbon emission level achieved during the equivalent DRE test to document compliance with the hydrocarbon standard; or
- (B) Perform a DRE test as part of the performance test.
6. Compliance with the DRE standard [40 CFR 63.1206(b)(7)] – (7) *Compliance with the DRE standard.* (i) Except as provided in 40 CFR 63.1206(b)(7)(ii) and (b)(7)(iii):

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- (A) The permittee must document compliance with the Destruction and Removal Efficiency (DRE) standard under 40 CFR 63.1203 through 63.1205 only once provided that the permittee does not modify the source after the DRE test in a manner that could affect the ability of the source to achieve the DRE standard.
- (B) The permittee may use any DRE test data that documents that the source achieves the required level of DRE provided:
- (1) The permittee has not modified the design or operation of the source in a manner that could effect the ability of the source to achieve the DRE standard since the DRE test was performed; and,
- (2) The DRE test data meet quality assurance objectives determined on a site-specific basis.
- (ii) Sources that feed hazardous waste at a location in the combustion system other than the normal flame zone must demonstrate compliance with the DRE standard during each comprehensive performance test;
- (iii) For sources that do not use DRE previous testing to document conformance with the DRE standard pursuant to 40 CFR 63.1207(c)(2), the permittee must perform DRE testing during the initial comprehensive performance test.
7. Applicability of particulate matter and opacity standards during particulate matter CEMS correlation tests [40 CFR 63.1206(b)(8)] – (8) *Applicability of particulate matter and opacity standards during particulate matter CEMS correlation tests.* (i) Any particulate matter and opacity standards of parts 60, 61, 63, 264, 265, and 266 of this chapter (*i.e.*, any title 40 particulate or opacity standards) applicable to a hazardous waste combustor do not apply while the permittee conducts particulate matter continuous emissions monitoring system (CEMS) correlation tests (*i.e.*, correlation with manual stack methods) under the conditions of 40 CFR 63.1206(b)(8)(iii) through (vii).
- (ii) Any permit or other emissions or operating parameter limits or conditions, including any limitation on workplace practices, that are applicable to hazardous waste combustors to ensure compliance with any particulate matter and opacity standards of parts 60, 61, 63, 264, 265, and 266 of this chapter (*i.e.*, any title 40 particulate or opacity standards) do not apply while the permittee conducts particulate matter CEMS correlation tests under the conditions of 40 CFR 1206(b)(8)(iii) through (vii).
- (iii) For the provisions of this section to apply, the permittee must:
- (A) Develop a particulate matter CEMS correlation test plan that includes the following information. This test plan may be included as part of the comprehensive performance test plan required under 40 CFR 63.1207(e) and (f):
- (1) Number of test conditions and number of runs for each test condition;

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- (2) Target particulate matter emission level for each test condition;
  - (3) How the permittee plans to modify operations to attain the desired particulate matter emission levels; and
  - (4) Anticipated normal particulate matter emission levels; and
- (B) Submit the test plan to the Administrator for approval at least 90 calendar days before the correlation test is scheduled to be conducted.
- (iv) The Administrator will review and approve/disapprove the correlation test plan under the procedures for review and approval of the site-specific test plan provided by 40 CFR 63.7(c)(3)(i) and (iii). If the Administrator fails to approve or disapprove the correlation test plan within the time period specified by 40 CFR 63.7(c)(3)(i), the plan is considered approved, unless the Administrator has requested additional information.
  - (v) The particulate matter and opacity standards and associated operating limits and conditions will not be waived for more than 96 hours, in the aggregate, for a correlation test, including all runs of all test conditions, unless more time is approved by the Administrator.
  - (vi) The stack sampling team must be on-site and prepared to perform correlation testing no later than 24 hours after the permittee modifies operations to attain the desired particulate matter emissions concentrations, unless the permittee documents in the correlation test plan that a longer period of conditioning is appropriate.
  - (vii) The permittee must return to operating conditions indicative of compliance with the applicable particulate matter and opacity standards as soon as possible after correlation testing is completed.
8. Documenting compliance with the standards based on performance testing [40 CFR 63.1206(b)(12)] – (12) *Documenting compliance with the standards based on performance testing.* (i) The permittee must conduct a minimum of three runs of a performance test required under 40 CFR 63.1207 to document compliance with the emission standards of this subpart.
- (ii) The permittee must document compliance with the emission standards based on the arithmetic average of the emission results of each run, except that the permittee must document compliance with the destruction and removal efficiency standard for each run of the comprehensive performance test individually.
9. Calculation of hazardous waste residence time [40 CFR 63.1206(b)(11)] – (11) *Calculation of hazardous waste residence time.* The permittee must calculate the hazardous waste residence time and include the calculation in the performance test plan under 40 CFR 63.1207(f) and the operating record. The permittee must also provide the hazardous waste residence time in the Documentation of Compliance under 40 CFR

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63.1211(c) and the Notification of Compliance under 40 CFR 63.1207(j) and 63.1210(b).

10. Alternative particulate matter standard for incinerators with de minimis metals [40 CFR 63.1206(b)(14)] – (14) *Alternative to the particulate matter standard for incinerators.* (i) *General.* In lieu of complying with the applicable particulate matter standard of 40 CFR 63.1203(a)(7) or (b)(7), existing and new incinerators may elect to instead comply with the alternative metal emission control requirements described in 40 CFR 63.1206 (b)(14)(ii) or (b)(14)(iii), respectively.

(ii) *Alternative metal emission control requirements for existing incinerators.* (A) The permittee must not discharge or cause combustion gases to be emitted into the atmosphere that contain lead, cadmium, and selenium in excess of 240 µg/dscm, combined emissions, corrected to 7 percent oxygen; and,

(B) The permittee must not discharge or cause combustion gases to be emitted into the atmosphere that contain arsenic, beryllium, chromium, antimony, cobalt, manganese, and nickel in excess of 97 µg/dscm, combined emissions, corrected to 7 percent oxygen; and,

(C) The permittee must comply with the provisions specified in 40 CFR 63.1206 (b)(14)(iv).

(iii) *Alternative metal emission control requirements for new incinerators.* (A) The permittee must not discharge or cause combustion gases to be emitted into the atmosphere that contain lead, cadmium, and selenium in excess of 24 µg/dscm, combined emissions, corrected to 7 percent oxygen; and,

(B) The permittee must not discharge or cause combustion gases to be emitted into the atmosphere that contain arsenic, beryllium, chromium, antimony, cobalt, manganese, and nickel in excess of 97 µg/dscm, combined emissions, corrected to 7 percent oxygen; and,

(C) The permittee must comply with the provisions specified in 40 CFR 63.1206 (b)(14)(iv).

(iv) *Other requirements.* Existing and new incinerators must document in the operating record that they meet the requirements of 40 CFR 63.1206 (b)(14)(iv)(A) through (C).

(A) The twelve-hour rolling average of the maximum theoretical emissions concentration for lead, cadmium, and selenium, combined, for the combined hazardous waste feedstreams to the incinerator, must not exceed 1,325 µg/dscm.

(B) The twelve-hour rolling average of the maximum theoretical emissions concentration for arsenic, beryllium, chromium, antimony, cobalt, manganese, and

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nickel, combined, for the combined hazardous waste feedstreams to the incinerator, must not exceed 6,000 µg/dscm.

(C) The permittee must document that the permittee's air pollution control system achieves at least a 90 percent system removal efficiency for semivolatile metals. In making this demonstration, the permittee may spike semivolatile metals above the applicable levels of 40 CFR 63.1206(b)(14)(iv)(A) or (B) provided that the applicable alternative emission limitation of 40 CFR 63.1206(b)(14)(ii)(A) or (iii)(A) is attained during the test. This test may be performed independently of the comprehensive performance test and must be used to establish applicable operating parameter limits as described in 40 CFR 63.1209(n), not including 40 CFR 63.1209(n)(2), to ensure that a 90 percent semivolatile metal system removal efficiency is achieved during normal operations.

(v) *Operating limits.* (A) Semivolatile and low volatile metal operating parameter limits must be established to ensure compliance with the alternative emission limitations described in 40 CFR 63.1206(b)(14)(ii) and (iii) pursuant to 40 CFR 63.1209(n), except that semivolatile metal feedrate limits would apply to lead, cadmium, and selenium, combined, and low volatile metal feedrate limits would apply to arsenic, beryllium, chromium, antimony, cobalt, manganese, and nickel, combined.

(B) Twelve-hour rolling average hazardous waste metal feedrate limits required pursuant to 40 CFR 63.1206(b)(14)(iv)(A) and (B) are based on the combined hazardous waste feedstreams to the incinerator and may be expressed either as a maximum theoretical emission concentration limit or as a restriction on maximum hazardous waste metals mass feedrate and minimum gas flow rate.

(C) For purposes of complying with the twelve-hour rolling average hazardous waste metal feedrate limits of 40 CFR 63.1206(b)(14)(iv)(A) and (B), non-detectable metal constituents in each hazardous waste feed must be assumed to be present at one-half the detection limit.

### ***Compliance Demonstration Method:***

The permittee shall demonstrate compliance by continuously monitoring and shutting down the waste feed process if the Operating Parameters specified in Section B.7 are not in the ranges specified. Refer to Sections B.4.b. and B.5.b. for specific monitoring and recordkeeping requirements, respectively, due to existing permits and regulations.

## **2. Emission Limitations:**

- a. 40 CFR 63 Subpart EEE - Emission Limitations (Standards). Pursuant to 40 CFR 63.1203(a), the permittee shall not exceed the emission limitations listed below. Each emission limitation/standard is stated followed by the specific reference at 40 CFR 63 in brackets. For additional information on these permit requirements, the permittee should reference the detailed emission limitations and standards at the specific 40 CFR 63 location denoted. Please reference 40 CFR 63 Subpart EEE.

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1. Emission limits for existing sources for dioxins and furans [40 CFR 63.1203(a)(1)(i-ii)]
  - a. Emissions in excess of 0.20 ng TEQ/dscm corrected to 7 percent oxygen; or
  - b. Emissions in excess of 0.40 ng TEQ/dscm corrected to 7 percent oxygen provided that the combustion gas temperature at the inlet to the initial particulate matter control device is 400 deg.F or lower based on the average of the test run average temperatures. (For purposes of compliance, operation of a wet particulate control device is presumed to meet the 400 deg F or lower requirement);
2. Mercury in excess of 130 ug/dscm corrected to 7 percent oxygen [40 CFR 63.1203(a)(2)];
3. Lead and cadmium in excess of 240 ug/dscm, combined emissions, corrected to 7 percent oxygen [40 CFR 63.1203(a)(3)];
4. Arsenic, beryllium, and chromium in excess of 97 ug/dscm, combined emissions, corrected to 7 percent oxygen [40 CFR 63.1203(a)(4)];
5. For carbon monoxide and hydrocarbons [40 CFR 63.1203(a)(5)(i-ii)];
  - a. Carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If the permittee elects to comply with this carbon monoxide standard rather than the hydrocarbon standard under 40 CFR 63.1203(a)(5)(ii), the permittee must also document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by 40 CFR 63.1206(b)(7), hydrocarbons do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or
  - b. Hydrocarbons in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane;
6. Hydrochloric acid and chlorine gas in excess of 77 parts per million by volume, combined missions, expressed as hydrochloric acid equivalents, dry basis and corrected to 7 percent oxygen [40 CFR 63.1203(a)(6)]; and
7. Particulate matter in excess of 34 mg/dscm corrected to 7 percent oxygen [40 CFR 63.1203(a)(7)].
8. Destruction and removal efficiency (DRE) standard [40 CFR 63.1203(c)(1-3)] - (1) 99.99% *DRE*. Except as provided in 40 CFR 63.1203(c)(2), the permittee must achieve a destruction and removal efficiency (DRE) of 99.99% for each principle organic hazardous constituent (POHC) designated under 40 CFR 63.1203(c)(3). The permittee must calculate DRE for each POHC from the following equation:

$$DRE = [1 - (W_{out} / W_{in})] \times 100\%$$

Where:

$W_{in}$  = mass feedrate of one principal organic hazardous constituent (POHC) in a waste feedstream; and

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$W_{out}$  = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

(2) *99.9999% DRE*. If the permittee burns the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see 40 CFR 261.31), the permittee must achieve a destruction and removal efficiency (DRE) of 99.9999% for each principle organic hazardous constituent (POHC) that the permittee designates under 40 CFR 63.1203(c)(3). The permittee must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-*p*-dioxins and dibenzofurans. The permittee must use the equation in 40 CFR 63.1203(c)(1) to calculate DRE for each POHC. In addition, the permittee must notify the Administrator of intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027.

(3) *Principal organic hazardous constituents (POHCs)*. (i) The permittee must treat the Principal Organic Hazardous Constituents (POHCs) in the waste feed that the permittee specifies under 40 CFR 63.1203(c)(3)(ii) to the extent required by 40 CFR 63.1203(c)(1) and (c)(2).

(ii) The permittee must specify one or more POHCs from the list of hazardous air pollutants established by 42 U.S.C. 7412(b)(1), excluding caprolactam (CAS number 105602) as provided by 40 CFR 63.60, for each waste to be burned. The permittee must base this specification on the degree of difficulty of incineration of the organic constituents in the waste and on their concentration or mass in the waste feed, considering the results of waste analyses or other data and information.

9. Significant figures [40 CFR 63.1203(d)] - (d) *Significant figures*. The emission limits provided by 40 CFR 63.1203(a) and (b) are presented with two significant figures. Although the permittee must perform intermediate calculations using at least three significant figures, the permittee may round the resultant emission levels to two significant figures to document compliance.
- b. The permittee shall continue to comply with the following emission limitations based on current permits and regulations issued by the Cabinet:
  1. Pursuant to 401 KAR 59:020, Section 3(2)(b), emissions of particulate matter shall not exceed 0.2 grains per dry standard cubic feet (gr/dscf) of exhaust gases corrected to twelve (12) percent carbon dioxide excluding the contribution of carbon dioxide from auxiliary fuel.
  2. Pursuant to 401 KAR 59:020, Section 3(1), no person shall cause, suffer, allow, or permit any continuous emission into the open air from the final control device or stack which is greater than twenty (20) percent opacity. Refer to Section B. 4. b. 6.
  3. Pursuant to 40 CFR 61 Subpart E, the mercury emission rate shall not exceed 3200 grams in 24 hours and 1,168,000 grams per year [40 CFR 61.52].
  4. Refer to Section D.

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### ***Compliance Demonstration Method:***

1. The permittee shall demonstrate compliance by continuously monitoring and shutting down the waste feed process if the Operating Parameters specified in Section B.7 are not in the ranges specified.
2. The permittee shall comply with the particulate matter emission limitation for this emission unit by fulfilling the requirements specified under Section B.4. below.
3. The permittee shall comply with the particulate matter emission limitation for this emission unit by proper operation of Baghouse DU-5217A/B and Scrubber CO-5240. Proper dust collector and scrubber operation shall be demonstrated by fulfilling requirements specified under Sections B.7. and Section 5, below.
4. The permittee shall comply with the opacity limitations for this emission unit by conducting visible emission observations in accordance with Section B.4. below.

### **3. Testing Requirements:**

- a. 40 CFR 63 Subpart EEE. Pursuant to 40 CFR 63.1207, the permittee shall comply with the testing requirements listed below. Each test requirement is stated followed by the specific reference at 40 CFR 63 in brackets. For additional information on emission testing requirements, the permittee should reference the detailed emission testing requirements at the specific 40 CFR 63 location denoted. Please reference 40 CFR 63 Subpart EEE.
  1. General testing requirements [40 CFR 63.1207(a)]
  2. Types of performance tests [40 CFR 63.1207(b)].
    - a. Comprehensive performance test [40 CFR 63.1207(b)(1)]
    - b. Confirmatory performance test [40 CFR 63.1207(b)(2)]
  3. Initial comprehensive performance test [40 CFR 63.1207(c)]
    - a. Except as provided by 40 CFR 63.1207(c)(2), the permittee shall commence the initial comprehensive performance test not later than six months after the compliance date [40 CFR 63.1207(c)(1)].
    - b. The data in lieu of test age restriction provided in paragraph 63.1207(c)(2)(i)(A) of section 1207 does not apply for the duration of the interim standards (ie., the standards published in the Federal Register on February 13, 2002. 40 CFR 63.1207 (c)(2)(i)(A) does not apply until EPA promulgates permanent replacement standards pursuant to the Settlement Agreement notice in the Federal Register on November 16, 2001.
  4. Frequency of testing [40 CFR 63.1207(d)]
    - a. The permittee shall commence testing no later than 61 months after the date of commencing the previous comprehensive performance test. If the permittee submits data in lieu of the initial performance test, the permittee must commence the subsequent comprehensive performance test within 61 months of the date six months after the compliance date [40 CFR 63.1207(d)(1)].
    - c. The permittee shall commence confirmatory performance testing no later than 31 months after the date of commencing the previous comprehensive performance test. If the permittee submits data in lieu of the initial performance test, the permittee must commence the initial confirmatory performance test within 31 months of the date six months after the compliance date [40 CFR 63.1207(d)(2)].



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- d. The permittee shall complete performance testing within 60 days after the date of commencement, unless the USEPA Administrator or the Division for Air Quality determines that a time extension is warranted based on the permittee's documentation in writing of factors beyond the permittee's control that prevent the permittee from meeting the 60-day deadline [40 CFR 63.1207(d)(3)].  
Waiver of periodic comprehensive performance tests. Except as provided by 40 CFR 63.1207(c)(2), the permittee must conduct only an initial comprehensive performance test under the interim standards (i.e. standards published in the Federal Register on February 13, 2002; all subsequent comprehensive performance testing requirements are waived under the interim standards. The provisions in the introductory text to paragraph (d) and in paragraph (d)(1) of 40 CFR 63.1207 do not apply until EPA promulgates permanent replacement standards pursuant to the Settlement Agreement notice in the Federal Register on November 16, 2001.
5. Notification of performance test and CMS performance evaluation, and approval of test plan and CMS performance evaluation plan - [40 CFR 63.1207(e)]
6. Content of performance test plan [40 CFR 63.1207(f)]
7. Operating conditions during testing [40 CFR 63.1207(g)]
8. Operating conditions during subsequent testing [40 CFR 63.1207(h)]
9. Time extension for subsequent performance tests [40 CFR 63.1207(i)]
10. Notification of compliance [40 CFR 63.1207(j)]
11. Failure to submit a timely notification of compliance [40 CFR 63.1207(k)].
12. Failure of performance test [40 CFR 63.1207(l)]
13. Feedrate limits for non-detectable constituents [40 CFR 63.1207(n)].

**4. Specific Monitoring Requirements:**

- a. 40 CFR 63 Subpart EEE - Monitoring Requirements: Pursuant to 40 CFR 63.1209, the permittee shall comply with the monitoring requirements listed below. Each monitoring requirement is stated followed by the specific reference at 40 CFR 63 in brackets. For additional information on emission monitoring requirements, the permittee shall reference the detailed recordkeeping requirements at the specific 40 CFR 63 location denoted.
  1. Continuous emissions monitoring systems (CEMS) [40 CFR 63.1209(a)].
    - a. The permittee must use either a carbon monoxide or hydrocarbon CEMS to demonstrate and monitor compliance with the carbon monoxide and hydrocarbon standards under this subpart. The permittee must also use an oxygen CEMS to continuously correct the carbon monoxide and hydrocarbon levels to 7 percent oxygen [40 CFR 63.1209(a)(1)(i)].
    - b. The permittee must install, calibrate, maintain, and operate a particulate matter CEMS to demonstrate and monitor compliance with the particulate matter standards under 40 CFR 63 Subpart EEE. However, compliance with the requirements in this section to install, calibrate, maintain, and operate the PM CEMS is not required until such time that the Agency promulgates all performance specifications and operating requirements applicable to PM CEMS [40 CFR 63.1209(a)(1)(iii)].
    - c. The permittee must install, calibrate, maintain, and continuously operate the CEMS in compliance with the quality assurance procedures provided in the appendix to 40

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- CFR 63 Subpart EEE and 4B (carbon monoxide and oxygen), and 8A (hydrocarbons) in appendix B, 40 CFR 60 [40 CFR 63.1209(a)(2)].
- d. Carbon monoxide readings exceeding the span [40 CFR 63.1209(a)(3)].
  - e. Hydrocarbon readings exceeding the span [40 CFR 63.1209(a)(4)].
  - f. Petitions to use CEMS for other standards [40 CFR 63.1209(a)(5)].
  - g. Calculation of rolling averages [40 CFR 63.1209(a)(6)].
  - h. Operating parameter limits for hydrocarbons [40 CFR 63.1209(a)(7)].
2. Other continuous monitoring systems (CMS) [40 CFR 63.1209(b)].
  3. Analysis of feedstreams [40 CFR 63.1209(c)].
  4. Performance evaluations [40 CFR 63.1209(d)].
  5. Conduct of monitoring [40 CFR 63.1209(e)].
  6. Operation and maintenance of continuous monitoring systems [40 CFR 63.1209(f)].
  7. Alternative monitoring requirements other than continuous emissions monitoring systems (CEMS) [40 CFR 63.1209(g)].
  8. Reduction of monitoring data [40 CFR 63.1209(h)].
  9. When an operating parameter is applicable to multiple standards [40 CFR 63.1209(i)].
  10. To remain in compliance with the destruction and removal efficiency (DRE) standard, the permittee must establish operating limits during the comprehensive performance test (or during a previous DRE test under provisions of 40 CFR 63.1206(b)(7)) for the following parameters, unless the limits are based on manufacturer's specifications, and comply with those limits at all times that hazardous waste remains in the combustion chamber (i.e., the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated) [40 CFR 63.1209(j)]:
    - a. Minimum combustion chamber temperature [40 CFR 63.1209(j)(1)].
    - b. Maximum flue gas flowrate or production rate [40 CFR 63.1209(j)(2)].
    - c. Maximum hazardous waste feedrate [40 CFR 63.1209(j)(3)].
    - d. Operation of waste firing system [40 CFR 63.1209(j)(4)].
  11. Dioxins and furans. The permittee must comply with the dioxin and furans emission standard by establishing and complying with the following operating parameter limits. The permittee shall base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications [40 CFR 63.1209(k)]:
    - a. Gas temperature at the inlet to a dry particulate matter control device [40 CFR 63.1209(k)(1)].
    - b. Minimum combustion chamber temperature [40 CFR 63.1209(k)(2)].
    - c. Maximum flue gas flowrate or production rate [40 CFR 63.1209(k)(3)].
    - d. Maximum hazardous waste feedrate [40 CFR 63.1209(k)(4)].
  12. Mercury [40 CFR 63.1209(l)].
  13. Particulate matter [40 CFR 63.1209(m)].
  14. Semi volatile metals and low volatility metals [40 CFR 63.1209(n)].
  15. Hydrochloric acid and chlorine gas [40 CFR 63.1209(o)].
  16. Maximum combustion chamber pressure [40 CFR 63.1209(p)].
  17. Operating under different modes of operation [40 CFR 63.1209(q)].

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### **5. Specific Recordkeeping Requirements:**

- a. 40 CFR 63 Subpart EEE - Recordkeeping and Reporting Requirements. Pursuant to 40 CFR 63.1211(b), the permittee shall comply with the recordkeeping requirements referenced herein. Each specific reference at 40 CFR 63 is followed by the recordkeeping requirement. For additional information on recordkeeping requirements, the permittee shall reference the detailed recordkeeping requirements at the specific 40 CFR 63 location denoted.
  1. The permittee shall retain the following in the operating record:
    - (a) General. Information required to document and maintain compliance with the regulations of Subpart EEE, including data recorded by continuous monitoring systems (CMS), and copies of all notifications, reports, plans, and other documents submitted to the USEPA Administrator and Division for Air Quality. [40 CFR 63.1200, 63.10(b) and (c)]
    - (b) Documentation of compliance. [40 CFR 63.1211(c)]
    - (c) Documentation and results of the automatic waste feed cutoff operability testing. [40 CFR 63.1206(c)(3)(vii)]
    - (d) Feedstream analysis plan. [40 CFR 63.1209(c)(2)]
    - (e) If the permittee elects to comply with all applicable requirements and standards promulgated under authority of the Clean Air Act, including Sections 112 and 129, in lieu of the requirements of Subpart EEE when not burning hazardous waste, the permittee must document in the operating record that the source is in compliance with those requirements. [40 CFR 63.1206(b)(1)(ii)]
    - (f) Startup, shutdown, and malfunction plan. [40 CFR 63.1206(c)(2)]
    - (g) Corrective measures for any automatic waste feed cutoff that results in an exceedance of an emission standard or operating parameter limit. [40 CFR 63.1206(c)(3)(v)]
    - (h) Emergency safety vent operating plan. [40 CFR 63.1206(c)(4)(ii)]
    - (i) Corrective measures for any emergency safety vent opening. [40 CFR 63.1206(c)(4)(iii)]
    - (j) Operator training and certification program. [40 CFR 63.1206(c)(6)]
    - (k) Ramp down procedures for waste feed cutoffs. [40 CFR 63.1206(c)(7)]
    - (l) Documentation that a substitute activated carbon, dioxin/furan formation reaction inhibitor, or dry scrubber sorbent will provide the same level of control as the original material. [40 CFR 63.1209(k)(6)(iii), 40 CFR 63.1209(k)(7)(ii), 40 CFR 63.1209(k)(9)(ii) and 40 CFR 63.1209(o)(4)(iii)]
  2. Data compression. [40 CFR 63.1211(e)].
- b. The permittee shall continue to comply with existing permitted and regulated recordkeeping requirements contained herein. These recordkeeping requirements and conditions are based on current permits and regulations issued by the Cabinet. The permittee shall record and maintain records of the following information:

Records showing the dimensions and an analysis showing the storage capacity of each affected storage tank [401 KAR 60:005, Section 3(1)(q) and 40 CFR 60.110].

### **6. Reporting Requirements:**

- a. 40 CFR 63 Subpart EEE - Recordkeeping and Reporting Requirements. Pursuant to 40 CFR 63.1211(a), the permittee shall comply with the reporting requirements referenced

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herein. Each specific reference at 40 CFR 63 is accompanied by the reporting requirement. For additional information on reporting requirements, the permittee shall reference the detailed reporting requirements at the specific 40 CFR 63 location denoted.

1. The permittee shall submit the following reports to the USEPA Administrator and Division for Air Quality [63.1211(a)]:
  - (a) Startup, shutdown, and malfunction plan. [63.1206(c)(2)(ii)(B)]
  - (b) Compliance progress reports, if required as a condition of an extension of the compliance date granted under 40 CFR 63.6(i). [40 CFR 63.10(d)(4)]
  - (c) Excessive exceedances reports. [40 CFR 63.1206(c)(3)(vi)]
  - (d) Emergency safety vent opening reports. [40 CFR 63.1206(c)(4)(iv)]
  - (e) Periodic startup, shutdown, and malfunction reports. [40 CFR 63.10(d)(5)(i)]
  - (f) Immediate startup, shutdown, and malfunction reports. [40 CFR 63.10(d)(5)(ii)]
  - (g) Excessive emissions and continuous monitoring system performance report and summary report. [40 CFR 63.10(e)(3)]

### 7. Specific Control Equipment Operating Conditions:

#### Control Equipment Area B-52

<b>Emission Point(s)</b>	<b>Control Equipment</b>	<b>Operating Parameters</b> (continuous or at a minimum once per shift - unless noted)	<b>Comment</b>
<b>142 (X5-IR52)</b>	Jet-Aire JA-306H baghouse, DU-5217A/B (1986)	Established in the most recent version of the Notification of Compliance (incorporated by reference)	Deviation from operating parameters shall cause an automatic waste feed cut off.
<b>142 (X5-IR52)</b>	Clean Gas Systems Multiscrub V venturi scrubber, CO-5240 (1996)	Established in the most recent version of the Notification of Compliance (incorporated by reference)	Deviation from operating parameters shall cause an automatic waste feed cut off.
<b>143 (HY52)</b>	Thermal Oxider and Scrubber (IR-7401)	See Section E	Deviation from operating parameters shall be documented and corrected as soon as is practicable.

### 8. Alternate Operating Scenarios: None

### 9. Compliance Schedule:

40 CFR 63 Subpart EEE - Notification Requirements: Pursuant to 40 CFR 63.1210, the permittee shall comply with the notification requirements listed below. For additional information on notification requirements, the permittee should reference the detailed notification requirements at the specific 40 CFR 63 location denoted.

1. Summary of requirements [40 CFR 63.1210(a)]: The permittee shall submit the following notifications to the USEPA Administrator and Division for Air Quality:
  - (a) Initial notifications that the permittee is subject to Subpart EEE. [40 CFR 63.9(b)]
  - (b) Notification of intent to comply. [40 CFR 63.1210(b) and (c)]
  - (c) Notification that the permittee is subject to special compliance requirements. [40

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CFR 63.9(d)]

- (d) Notification of performance test and continuous monitoring system evaluation, including the performance test plan and CMS performance evaluation plan. [40 CFR 63.1207(e), 63.9(e), 40 CFR 63.9(g)(1) and (3)]
  - (e) Notification of compliance, including results of performance tests and continuous monitoring system performance evaluations. [40 CFR 63.1210(b), 63.1207(j), 63.1207(k), 63.1207(l), 63.9(h), 63.10(d)(2), 40 CFR 63.10(e)(2)]
  - (f) Notification of changes in design, operation, or maintenance. [40 CFR 63.1206(b)(5)(i)]
  - (g) Notification and documentation of any change in information already provided under 40 CFR 63.9. [40 CFR 63.9(j)]
  - (h) The permittee may also be required on a case-by-case basis to submit a feedstream analysis plan under 40 CFR 63.1209(c)(3).
2. The permittee shall submit the following notifications, request, petition, or application to the USEPA Administrator or Division if the permittee requests or elects to comply with alternative requirements:
- (a) The permittee may request an extension of the compliance date for up to one year. [40 CFR 63.1206(b)(4), 63.1213, 40 CFR 63.6(i), 63.9(c)]
  - (b) The permittee may request an adjustment to time periods or postmark deadlines for submittal and review of required information. [40 CFR 63.9(i)]
  - (c) The permittee may request approval of: (1) alternative monitoring methods, except for standards that the permittee must monitor with a continuous emission monitoring system (CEMS) and except for requests to use a CEMS in lieu of operating parameter limits; or (2) a waiver of an operating parameter limit. [40 CFR 63.1209(g)(1)]
  - (d) The permittee may request: (1) approval of alternative monitoring methods for compliance with standards that are monitored with a CEMS; and (2) approval to use a CEMS in lieu of operating parameter limits. [40 CFR 63.1209(a)(5), 63.8(f)]
  - (e) Notification that the permittee elects to document compliance with all applicable requirements and standards promulgated under authority of the Clean Air Act, including Sections 112 and 129, in lieu of the requirements of Subpart EEE of this Part when not burning hazardous waste. [40 CFR 63.1206(b)(1)(ii)(A)]
  - (f) The permittee may request to burn hazardous waste for more than 720 hours and for purposes other than testing or pretesting after a making a change in the design or operation that could affect compliance with emission standards and prior to submitting a revised Notification of Compliance. [40 CFR 63.1206(b)(5)(i)(C)]
  - (g) If the permittee elects to conduct particulate matter CEMS correlation testing and wishes to have federal particulate matter and opacity standards and associated operating limits waived during the testing, the permittee must notify the USEPA Administrator /Division for Air Quality by submitting the correlation test plan for review and approval. [40 CFR 63.1206(b)(8)(iii)(B)]
  - (h) Owners and operators of incinerators may elect to comply with an alternative particulate matter standard of 68 mg/dscm, corrected to 7% oxygen, under a petition documenting de minimis metals levels in feedstreams. [40 CFR 63.1206(b)(14)]
  - (i) The permittee may request to base initial compliance on data in lieu of a comprehensive performance test. [40 CFR 63.1207(c)(2)]

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- (j) The permittee may request more than 60 days to complete a performance test if additional time is needed for reasons beyond the permittee's control. [40 CFR 63.1207(d)(3)]
- (k) The permittee may request up to a one-year time extension for conducting a performance test (other than the initial comprehensive performance test) to consolidate testing with other state or federally-required testing. [40 CFR 63.1207(i)]
- (l) The permittee may request more than 90 days to submit a Notification of Compliance after completing a performance test if additional time is needed for reasons beyond the permittee's control. [40 CFR 63.1207(j)(4)]
- (m) After failure of a performance test, the permittee may request to burn hazardous waste for more than 720 hours and for purposes other than testing or pretesting. [40 CFR 63.1207(l)(3)]
- (n) The permittee may request to extrapolate mercury feedrate limits. [40 CFR 63.1209(l)(1)]
- (o) The permittee may request to extrapolate semivolatile and low volatile metal feedrate limits. [40 CFR 63.1209(n)(2)(ii)]
- (p) The permittee may request to reduce the frequency of excess emissions and CMS performance reports. [40 CFR 63.10(e)(3)(ii)]
- (q) The permittee may request to waive recordkeeping or reporting requirements. [40 CFR 63.10(f)]

### **10. Compliance Certification Requirements:**

Refer to Section F.9.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### PRODUCTION AREA B-55

Emission Point(s)	Process ID (Installation Date)	Process Description
<b>146 (HT55)</b>	250 gal. Tin Charge Pot, TK-5506 (1999)	Interim Storage
<b>147 (RC55V)</b>	3,000 gal. Receiver Tank, TK-5508 (1999)	Interim Storage
	6,000 gal. Intermediate Blend Tank, TK-5513 (1999)	Interim Storage
	Absorption Column (CO-5508) (1999)	Product absorption
	10,000 gal. Emergency Pressure Relief Tank, TK-5517 (1999)	(Emergency system)
	850 gal. Emergency Vent Separator Tank, TK-5531 (1999)	Storage Tank
	1,500 gal. Hot Oil Expansion Tank, TK-5523 (1999)	Storage Tank
	500 gal. Hot Oil Expansion Tank, TK-5521 (1999)	Storage Tank
	500 gal. Hot Oil Expansion Tank, TK-5523 (1999)	Storage Tank
	1500 MMTC/DMTC Product Receiver Tank (TK55100 - Installed 12/8/01)	Storage Tank
	500 MMTC/DMTC Product Forecut Receiver Tank (TK55101 - Installed 12/8/01)	Storage Tank
	500 Propylene Glycol/Water Expansion Tank (TK55110 - 2001)	Storage Tank
<b>148 (RX55)</b>	2,000 gal. #1 Reactor, RX-5501 (1999)	Chemical Reaction
<b>149 (FS55)</b>	385 gal. Tin Crucible, MP-5507 (1999)	Product forming/shaping
<b>150 (ST55)</b>	11,000 gal. Product Storage Tank, TK-5509 (1999)	Material handling/storage
	11,000 gal. Product Storage Tank, TK-5511 (1999)	
	11,000 gal. Product Storage Tank, TK-5512 (1999)	
	11,000 gal. Product Storage Tank, TK-5510 (2005)	
	1,700 gal. Methylene Chloride Tank, TK-5502 (1999)	
	35,000 gal. Methylene Chloride Storage Tank, TK-5504 (1999)	
	2,000 gal. Waste Methanol Tank, TK-5516 (1999)	
	3,000 gal. PG/Water Storage, TK-5525 (1999)	
	1,500 gal. PG/Water Storage, TK-5530 (1999)	
	750 gal. CIP Tank, TK-5534 (1999)	
	4,500 gal. Process Water Storage Tank, TK-5528 (1999)	
	Methylene Chloride Vaporizer, EX-5502 (1999)	
	Tin Melt Pot Exhaust Blower, BW-5507 (1999)	
	100 gal. Vent Heeder RO Pot, TK-5524 (1999)	
<b>151 (TE55)</b>	Fugitive Emissions, pumps valves, flanges (1999)	Piping

## **SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS**

**Control Equipment:** Thermal Oxidizer and caustic scrubber (IR-5519) and Venturi Scrubber (VS-5518)

### **APPLICABLE REGULATIONS:**

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

#### **1. Operating Limitations:**

- a. To preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality, for emissions of volatile organic compounds (VOC), emissions from Emission Point 148 shall be controlled by the thermal oxidizer at all times.
- b. Pursuant to 401 KAR 63:020, Section 3, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.

#### ***Compliance Demonstration Method:***

- a. For compliance with the non-applicability of 401 KAR 51:017, refer to Section E.a.
- b. For compliance with 401 KAR 63:020, refer to Section D.

#### **2. Emission Limitations:**

Refer to Section D for potentially hazardous matter or toxic substances limitations.

#### ***Compliance Demonstration Method:***

Refer to Section D for the compliance demonstration method for source-wide emission limits.

#### **3. Testing Requirements:**

Refer to Section D.

#### **4. Specific Monitoring Requirements:**

- a. The permittee shall continuously monitor the flow rate, pH and pressure drop of the thermal oxidizer scrubber.
- b. The permittee shall continuously monitor the combustion chamber temperature and waste feed rate of the thermal oxidizer.
- c. The permittee shall continuously monitor the outlet gas temperature of the thermal oxidizer quench.
- d. Refer to Control Equipment Table, Area B-55, in Subsection B.7 (below).

#### **5. Specific Recordkeeping Requirements:**

- a. The permittee shall record and maintain such records of the following:
  - i. annual scrubber and thermal oxidizer inspections and preventive maintenance performed.
  - ii. monitoring and operating parameters for control equipment as indicated in Subsection B.7 (below)
- b. Refer to Section F.2 regarding retention time of records.

#### **6. Specific Reporting Requirements:** N/A



## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### 7. Specific Control Equipment Operating Conditions:

#### Control Equipment Area B-55

Emission Point (s)	Process ID	Control Equipment	Operating Parameters	Comments
146 (HT55) 147 (RC55V)  148 (RX55) 149 (FS55) 150 (ST55)	TK-5506  TK-5508, TK-5513, CO-0508, TK-5517, TK-5531, TK-55100, TK-55101  RX-5501 MP-5507  TK-5509, TK-5510, TK-5511, TK-5512, TK-5502, TK-5504, TK-5516, TK-5534, EX-5502, BW-5507, TK-5524	Thermal oxidizer, IR-5519 followed by caustic scrubber	Chamber Temperature: $\geq 2150^{\circ}\text{F}$ Waste Gas Feed: $\leq 300$ lb/hr Quench Inlet Temp: $> 750^{\circ}\text{F}$ Quench Outlet Temp: $\leq 450^{\circ}\text{F}$ (record each parameter daily)	Deviation from operating parameters shall cause an automatic waste feed cut off.
146 (HT55) 147 (RC55V)  148 (RX55) 149 (FS55) 150 (ST55)	TK-5506  TK-5508, TK-5513, CO-0508, TK-5517, TK-5531, TK-55100, TK-55101  RX-5501 MP-5507  TK-5509, TK-5510, TK-5511, TK-5512, TK-5502, TK-5504, TK-5516, TK-5534, EX-5502, BW-5507, TK-5524	Caustic scrubber, integral to IR-5519	Scrubber Liquor Flow $\geq 16$ GPM Pressure drop $\leq 12''$ H <sub>2</sub> O pH $\geq 4.0$ (record each parameter daily)	Treats exhaust from the thermal oxidizer
150 (ST55)	TK-5509, TK-5510, TK-5511, TK-5512	Venturi scrubber, VS-5518		Vented to thermal oxidizer

- The thermal oxidizer operating parameters identified above shall be continuously monitored; any deviations from specified operating parameters shall automatically shut off the waste feeds.
- The scrubber shall be inspected on an annual basis. Preventive maintenance shall be performed in accordance with manufacturer's specifications. The scrubbers shall be inspected on an annual basis for proper operation of the following:

**SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS**

1. Scrubber liquid pump(s)
2. Scrubber liquid spray nozzles
3. Scrubber internals
4. pH instrumentation (TO Scrubber only)
- c. Thermal oxidizer IR-5519 and caustic scrubber shall be operated in accordance with manufacturer's specifications and/or standard recommended operating procedures at all times emission point 148 is in operation. The thermal oxidizer shall be inspected on an annual basis. Preventive maintenance shall be performed in accordance with manufacturer specifications. The thermal oxidizer shall be inspected on an annual basis for proper operation of the following:
  1. Structural integrity of shell, heat exchanger internals
  2. Auxiliary fuel firing system
  3. Thermocouple and temperature recording instrumentation
- d. The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the emission points are in operation but the associated air pollution control equipment is not.
- e. Compliance with the minimum quench inlet temperature requirement shall be demonstrated by ensuring that the combustion chamber temperature is maintained at a minimum of 2150°F.

**8. Alternate Operating Scenarios:**

The permittee controls VOC emissions from B-55 using a thermal oxidizer (IR-5519). With the issuance of this permit, the permittee has the option to control emissions using an alternate thermal oxidizer (IR-7401). The permittee will demonstrate that IR-7401 meets or exceeds the performance of IR-5519 for VOC control. All monitoring and recordkeeping requirements defined in Section E will continue to apply under this scenario. The permittee will notify the Division in writing prior to switching between the two thermal oxidizers.

**9. Compliance Schedule:**

N/A

**10. Compliance Certification Requirements:**

Refer to Section F.9.

## SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS

### WASTEWATER TREATMENT AREA B-67

Emission Point(s)	Process ID (Installation Date)	Process Description
152 (WC)	22,000 gal Collection Tank #1, TK-6713	Interim storage
153 (WD)	22,000 gal Collection Tank #2, TK-6714	Interim storage
154 (WA)	750,000 gal Equalization Tank #1, TK-6701 (1991)	Interim storage
155 (WB)	750,000 gal Equalization Tank #2, TK-6702 (1991)	Interim storage
156 (WE)	5,000 gal. Trim Neutralization Tank, TK-5292 (8/90)	pH treatment
157 (WV)	Lamella gravity settler/thickener, CL-5212	Physical treatment
158 (WW)	5,000 gal. Overflow Tank, TK-5212	Interim storage
159 (WX)	20,000 gal. Filter Feed Tank, TK-5201	Interim storage
160 (WY)	1,950 ft <sup>2</sup> Filter Press	Sludge dewatering/filtering
161 (WF)	15,800 gal. Chemical Mix Tank, TK-6703 (1991)	Chemical storage
162 (WG)	712 gal. Splitter Tank, TK-6704 (1991)	Physical treatment
163 (WL)	750,000 gal. Aeration Tank #1, TK-6705 (1991)	Physical treatment
164 (WM)	750,000 gal. Aeration Tank #2, TK-6706 (1991)	Physical treatment
165 (W1)	110,000 gal. Clarification Tank #1, TK-6708 (1991)	Physical treatment
166 (WP)	110,000 gal. Clarification Tank #2, TK-6709 (1991)	Physical treatment
167 (WJ)	367 gal. Scum Tank, TK-6710 (1991)	Material storage
168 (WS)	34,422 gal. Secondary Sludge Tank, TK-6712 (1991)	Material storage
169 (WK)	11,163 gal. Sludge Batch Tank, TK-5293 (1991)	Physical treatment
170 (WQ)	Sand Filter #1, FI-6718 (1991)	Physical treatment
171 (WR)	Sand Filter #2, FI-6719 (1991)	Physical treatment
172 (WH)	2,632 gal. Sand Filter Backwash Tank, TK-6715 (1990)	Physical treatment
173 (WU)	25,380 gal. Backwash Tank, TK-6716 (1990)	Interim storage
174 (WI)	GAC Feed Tank, TK-6711 (1990)	Water filtering
175 (WT)	Sulfuric Acid Tank	Storage
	Ferric Chloride Tank, TK-5290	
176 (TE67)	Fugitives-Pipeline/Transport Equipment	Pumps, pipes, valves, etc.

Maximum throughput = 191,100,000 gallons per year

## **SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS**

### **APPLICABLE REGULATIONS:**

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

**1. Operating Limitations:**

Pursuant to state permit C-90-130 (Revised), annual throughput shall not exceed 191,100,000 gallons per year.

**2. Emission Limitations:**

Refer to Section D for source-wide emission limits.

***Compliance Demonstration Method:***

Refer to Section D for the compliance demonstration method for source-wide limits.

**3. Testing Requirements:**

None

**4. Specific Monitoring Requirements:**

The permittee shall monitor the throughput of the wastewater treatment plant.

**5. Specific Recordkeeping Requirements:**

The permittee shall record and maintain records of the following information:

- a. Monthly totals of the wastewater treatment plant throughput. Compliance with the annual limit shall be based on the rolling 12 month total. Within 30 days following the conclusion of each month, the rolling 12-month total shall be calculated for the preceding 12 months.
- b. Refer to Section F.2 regarding retention time of records.

**6. Specific Reporting Requirements: None**

**7. Specific Control Equipment Operating Conditions: None**

**8. Alternate Operating Scenarios: None**

**9. Compliance Schedule:**

N/A

**10. Compliance Certification Requirements:**

Refer to Section F.9.

**SECTION B – EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS****AREA B-74 THERMAL OXIDIZER**

<b>Emission Point(s)</b>	<b>Process ID (Installation Date)</b>	<b>Process Description</b>
<b>177</b>	Thermal Oxidizer (main burner – 14 mmBtu/hr natural gas)	Burner
<b>178</b>	Thermal Oxidizer (auxiliary burner – 3 mmBtu/hr natural gas)	Burner

**Control Equipment:** None

**APPLICABLE REGULATIONS:**

None

**1. Operating Limitations:**

None.

**2. Emission Limitations:**

None

**3. Testing Requirements:**

None

**4. Specific Monitoring Requirements:**

None

**5. Specific Recordkeeping Requirements:**

None

**6. Specific Reporting Requirements:**

None

**7. Specific Control Equipment Operating Conditions:**

None

**8. Alternate Operating Scenarios:**

None

**9. Compliance Schedule:**

None

**10. Compliance Certification Requirements:**

Refer to Section F.9.

**SECTION C - INSIGNIFICANT ACTIVITIES**

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant, the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

<b>Unit ID</b>	<b>Description</b>	<b>Generally Applicable Regulation</b>
<b><u>B-02</u></b>		
ST02	20,000 gal. fuel oil storage, TK-0264	None
ST02	20,000 gal. fuel oil storage, TK-0264	None
<b><u>B-03</u></b>		
None		
<b><u>B-05</u></b>		
RC05	50 gal. Hot Oil Expansion Tank, TK-0508B Product/material receiving	None
RC05	250 gal. Oil Expansion Tank, TK-0550 Product/material receiving	None
PF05	Process filter	None
<b><u>B-06</u></b>		
PF06	Chloride/Bromide Filter, FI-0602	None
HT06	200 gal. Mag. Charging System, TK-0607 (1964)	None
<b><u>B-17</u></b>		
ST17	2,000 gal. organic liquid storage tank, TK-1703 Raw material storage	None
ST17	2,000 gal. organic liquid storage tank, TK-1704 Raw material storage	None
ST17	5,000 gal. organic liquid storage tank, TK-1705 Raw material storage	None
ST17	5,000 gal. organic liquid storage tank, TK-1707 Raw material storage	None
ST17	5,000 gal. organic liquid storage tank, TK-1708 Raw material storage	None
ST17	5,000 gal. organic liquid storage tank, TK-1709 Raw material storage	None
ST17	5,000 gal. organic liquid storage tank, TK-1710 Raw material storage	None
ST17	5,000 gal. organic liquid storage tank, TK-1711 Raw material storage	None
ST17	5,000 gal. organic liquid storage tank, TK-1712 Raw material storage	None
ST17	5,000 gal. organic liquid storage tank, TK-1713 Raw material storage	None
ST17	13,000 gal. organic liquid storage tank, TK-1714 Raw material storage	None
ST17	5,000 gal. organic liquid storage tank, TK-1715 Raw material storage	None
ST17	13,000 gal. organic liquid storage tank, TK-1716 Raw material storage	None
ST17	5,000 gal. organic liquid storage tank, TK-1717 Raw material storage	None
ST17	13,000 gal. organic liquid storage tank, TK-1718 Raw material storage	None
ST17	5,000 gal. organic liquid storage tank, TK-1719 Raw material storage	None

**SECTION C - INSIGNIFICANT ACTIVITIES**

ST17	4,000 gal. organic liquid storage tank, TK-1720A Raw material storage	None
ST17	4,000 gal. organic liquid storage tank, TK-1720B Raw material storage	None
ST17	4,000 gal. organic liquid storage tank, TK-1720C Raw material storage	None
ST17	5,000 gal. organic liquid storage tank, TK-1721 Raw material storage	None
ST17	13,000 gal. organic liquid storage tank, TK-1722 Raw material storage	None
ST17	13,000 gal. organic liquid storage tank, TK-1723 Raw material storage	None
ST17	13,000 gal. organic liquid storage tank, TK-1724 Raw material storage	None
ST17	6,000 gal. organic liquid storage tank, TK-1725A Raw material storage	None
ST17	6,000 gal. organic liquid storage tank, TK-1725B Raw material storage	None
ST17	8,883 gal. organic liquid storage tank, TK-1726 Raw material storage	None
ST17	6,600 gal. organic liquid storage tank, TK-1727B Raw material storage	None
ST17	13,000 gal. organic liquid storage tank, TK-1728 Raw material storage	None
ST17	12,000 gal. organic liquid storage tank, TK-1729 Raw material storage	None
ST17	20,000 gal. organic liquid storage tank, TK-1730 Raw material storage	None
ST17	12,000 gal. organic liquid storage tank, TK-1731 Raw material storage	None
ST17	12,000 gal. organic liquid storage tank, TK-1732 Raw material storage	None
ST17	12,000 gal. organic liquid storage tank, TK-1733 Raw material storage	None
ST17	11,000 gal. organic liquid storage tank, TK-1735 Raw material storage	None
ST17	11,000 gal. organic liquid storage tank, TK-1736 Raw material storage	None
ST17	11,000 gal. organic liquid storage tank, TK-1737 Raw material storage	None
ST17	11,000 gal. organic liquid storage tank, TK-1738 Raw material storage	None
ST17	13,000 gal. organic liquid storage tank, TK-1740 Raw material storage	None
ST17	16,000 gal. organic liquid storage tank, TK-1741 Raw material storage	None
ST17	6,000 gal. organic liquid storage tank, TK-1743 Raw material storage	None
ST17	16,000 gal. organic liquid storage tank, TK-1745 Raw material storage	None
ST17	11,000 gal. organic liquid storage tank, TK-1746 Raw material storage	None
ST17	7,000 gal. organic liquid storage tank, TK-1747 Raw material storage	None
ST17	11,000 gal. organic liquid storage tank, TK-1748 Raw material storage	None
ST17	7,000 gal. organic liquid storage tank, TK-1749 Raw material storage	None
ST17	16,000 gal. organic liquid storage tank, TK-1750 Raw material storage	None
ST17	11,000 gal. organic liquid storage tank, TK-1759 Raw material storage	None

**B-22**

CB22	#1 SnCl <sub>2</sub> burner, BU-2230	None
CB22	#2 SnCl <sub>2</sub> burner, BU-2235	None
TE22	#1 Packing Scale, SE-2230	None
TE22	#2 Packing Scale, SE-2235	None
FS22	250 gal. #1 SnCl <sub>2</sub> Tin pot, MP-2230 (1973)	None
FS22	Sweco Screener, SS-2230 (N/A)	401 KAR 59:010

**SECTION C - INSIGNIFICANT ACTIVITIES**

FS22	250 gal. #2 SnCl <sub>2</sub> Tin pot, MP-2235 (1950)	None
FS22	Sweco Screener, SS-2235 (1994)	None
FS22	#1 SnCl <sub>2</sub> flaker, FL-2230 (1988)	401 KAR 59:010
FS22	#2 SnCl <sub>2</sub> flaker, FL-2235 (1961)	401 KAR 59:010
FS22	#1 SnCl <sub>2</sub> conveyor, CN-2230 (1955)	401 KAR 61:020
FS22	#2 SnCl <sub>2</sub> conveyor, CN-2235 (1967)	401 KAR 61:020
RC22	Cylinder Packing Scale, SE-2250 (N/A)	None
RC22	Tin Purification Pot, MP-2260 (1967)	None
RX22	40 gal. Tin Purification Reactor, RX-2260 (N/A)	None
RC22	585 gal. Separator Tank, TK-2201A (1998)	None
RC22	1,000 gal. Splitter Tank, TK-2201B (1998)	None
RC22	Separator Tank, TK-2202A (1999)	None
RC22	1,000 gal. #2 Splitter Tank, TK-2202B (1999)	None
ST22	1,000 gal. Water Wash Tank, TK-2240 (N/A)	None
ST22	2,000 gal. Chlorine Vent Tank, TK-2270 (1986)	None
ST22	1,500 gal. Waste Tank, TK-2285 (1995)	None
WW22	Collection Basin, CB-2270 (N/A)	None
WW22	Collection Basin, CB-2274 (N/A)	None
CB22	Tin/Aluminum Burner, BU-2255 (N/A)	None
CB22	Pure Tin Burner, BU-2257 (1951)	None
CB22	Tin Purification Burner, BU-2260 (N/A)	None
CB22	Tin Flaker Burner, BU-2265 (N/A)	None
DR22	Feather Tin Dryer, DR-2265 (N/A)	401 KAR 59:010
FS22	Tin Ball Punch Press, PP-2252 (N/A)	401 KAR 59:010
FS22	Tin/Aluminum Pot, MP-2255 (1995)	None
FS22	Tin Ball Mold, ME-2256 (N/A)	None
FS22	Pure Tin Pot, MP-2257 (N/A)	None
FS22	Tin Flaker Pot, MP-2265 (1968)	401 KAR 61:020
FS22	59 gal. Feather Tin Tank, TK-2265 (N/A)	None
TE22	Tin Tank Conveyor, CN-2265 (N/A)	None
TE22	Dryer Vibrating Conveyor, CN-2266 (1973)	401 KAR 61:020
FS22	Dust Collector, DU-2265 (1987)	401 KAR 59:010

Note: 6 burners are combined at a rating of  $0.34 \times 10^6$  BTU/hr

**B-27**

HT27	1000 gal. Glycol Hold Tank, TK-2792 Product/material storage	None
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**B-28**

WW28	Wastewater Collection Basin	None
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**SECTION C - INSIGNIFICANT ACTIVITIES****B-29**

None

**B-32**

HT32	100 gal. Hot Oil Tank, TK-32101	None
RC32V	600 gal. Hot Water Mix Tank, TK-3220	None
HT32	176 gal. Dowtherm Expansion Tank, TK-32114	None

**B-33**

HT33	1,000 gal. Glycol Hold Tank, TK-4620	None
HT33	500 gal. Glycol Hold Tank, TK-4623	None
HT33	200 gal. Mag. Charging System, TK-3304 (1967)	None
HT33	1,000 gal. Glycol Storage Tank, TK-3328 (1969)	None
DT33	Drum/tote loading/unloading	None

**B-37**

WT37	500 gal. Weigh Tank, WT-3701	None
WT37	150 gal. Weigh Tank, WT-3708	None
WT37	150 gal. Weigh Tank, WT-3709	None
ST37	200 gal. Scrubber, TK-3702	None
ST37	25 gal. Storage Tank, TK-3704A	None
ST37	25 gal. Storage Tank, TK-3704B	None
ST37	210 gal. Storage Tank, TK-3716	None
ST37	210 gal. Dryer Surge Tank, TK-3720	None
ST37	1000 gal. Glycol Storage Tank, TK-3727	None
ST37	275 gal. Storage Tank, TK-3755	None
ST37	12 gal. Storage Tank, TK-3753	None
ST37	20 gal. Hot Oil Expansion Tank, TK-3760	None
RX37	500 gal. Reactor, RX-3703	None
RX37	500 gal. Reactor, RX-3705	None
RX37	300 gal. Reactor, RX-3706	None
RX37	100 gal. Reactor, RX-3710	None
RX37	100 gal. Reactor, RX-3711	None
RX37	100 gal. Reactor, RX-3712	None
RX37	50 gal. Reactor, RX-3752	None
DR37	200 gal. Double Cone Dryer, DR-3720	None
DU37	Dust Collector, DU-3725	None
ML37	Fitzmill, ML-3726	None
FI37	Niagara Filter, FI-3732	None

**SECTION C - INSIGNIFICANT ACTIVITIES**

FI37	Niagara Filter, FI-3738	None
CF37	Centrifuge, CF-3739	None
FL37	Flaker, FL-3740	None
BL37	Blender, BL-3753	None
SS37	Screener, SS-3754	None

**B-39**

None

**B-46**

None

**B-48**

None

**B-52**

ST52	5,000 gal. Caustic Storage Tank, TK-5202A Raw material storage	None
ST52	5,000 gal. Caustic Storage Tank, TK-5202B Raw material storage	None
ST52	5,000 gal. Solvent Blend Tank, TK-5203A Waste Feed Storage	None
ST52	5,000 gal. Solvent Blend Tank, TK-5203B Waste Feed Storage	None
ST52	5,000 gal. Solvent Blend Tank, TK-5203C Waste Feed Storage	None
ST52	10,000 gal. Solvent Feed Tank, TK5204A Waste Feed Storage	None
ST52	10,000 gal. Solvent Feed Tank, TK5204B Waste Feed Storage	None
ST52	6,000 gal. Methyl Waste Tank, TK-5202 Waste Feed Storage	None
ST52	19,400 gal. Slurry Feed Tank, TK-5209A Waste Feed Storage	None
ST52	19,400 gal. Slurry Feed Tank, TK-5209B Waste Feed Storage	None
ST52	20,000 gal. Hazardous Waste Tank, TK-5210 Waste Feed Storage	None
ST52	Soot Blower Air Receiver, TK-5206	None
ST52	4,000 gal. Boiler Feed Water Tank, TK-5207	None
ST52	150 gal. Air Receiver Tank, TK5208	None
ST52	5,000 gal. Filtered Water Tank, TK-5211	None
ST52	50 gal. Feed Tank, TK-5214B	None
ST52	200 gal. Polymer Tank, TK-5214C	None
ST52	Chelant Tank, TK-5224A	None
ST52	Chelant Tank, TK-5224B	None
ST52	200 gal. Condensation Tank, TK-5227	None
ST52	Sulfuric Acid Storage Tank, TK-5294	None
ST52	6,000 gal. Ferric Chloride Tank, TK-5290	None
ST52	1,500 gal. Henkle Tank, TK-5291	None

**SECTION C - INSIGNIFICANT ACTIVITIES**

**B-55**

DT55	Drum/Tote Loading/Unloading	None
WW55	Waste water treatment	None

**B-67**

ST67	Silencer Tank, TK-6706B	None
ST67	Silencer Tank, TK-6706C	None
ST67	Silencer Tank, TK-6706D	None
ST67	Silencer Tank, TK-6706E	None
ST67	600 gal. Permanganate Tank, TK-6722	None

## **SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS**

### **Opacity Monitoring of Emission Point:**

The following procedure shall be used to monitor visible emissions from the dryers, Emission Points 05 (DR-03), 42 (DR-27), 58 (DR-28), 71 (DR-32), and 122(DR-39):

The permittee shall monitor the visible emissions exiting from the respective stack for each of the above-mentioned facilities during discharge. A log shall be kept for each of the above-mentioned facilities. Once per week, during discharge of each unit, the following information shall be recorded in the facility's log:

- i. The date, time, and duration of the process of discharging;
- ii. Whether any air emissions were visible at the point of emission of air pollutants to the ambient air;
- iii. If visible emissions are observed, then the permittee shall perform a Method 9 reading for the emission point of concern. The opacity observed shall be recorded in the log for that emission point.

The following procedure shall be used to monitor visible emissions for Emission Points 01, 02, 03, 04, 45 (FS27), 123 (FS39), 127 (FS39), and IR-7401:

The permittee shall monitor the visible emissions for each affected emission point once per week when any specified emissions point is operating; the permittee shall survey, for visible emissions and maintain a log noting the following information:

- i. The date and time the emission point in operation was being observed;
- ii. Whether any air emissions were visible from any of the respective emissions points;
- iii. All emission points from which visible emissions were observed;
- iv. If no visible emissions are observed, then no further monitoring is required. If visible emissions are observed, the permittee shall perform a Method 9 reading for the emission point of concern. The opacity observed shall be recorded in the log.

## **SOURCE WIDE EMISSIONS OF TOXIC AIR POLLUTANTS**

### **APPLICABLE REGULATIONS:**

401 KAR 63:020, *Potentially hazardous matter or toxic substances*

401 KAR 63:021, *Existing sources emitting toxic air pollutants*, effective date January 19, 1999, applies to sources in existence on the effective date of the regulation which were issued a permit with conditions based on 401 KAR 63:022. The source is required to comply with all conditions based on 401 KAR 63:022 unless it can demonstrate that a condition is no longer necessary to protect human health and the environment.

### **1. Operating Limitations:**

None

### **2. Emission Limitations:**

- a. Pursuant to State-only regulation 401 KAR 63:021, the source wide emissions of toxic air pollutants shall not exceed the limits specified in the table below.

## SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

Hazardous or Toxic Air Pollutant	Hazardous or Toxic Air Pollutant Emission Rate Limits (lbs/hr)
Hydrochloric acid (HCl)	7.8
Ammonia	1.48
Napthalene	38.65
Acetone	462.43
Xylene	119.95
Acetic Anhydride	1.04
Cyclohexane	596.09
Butyl Alcohol	121.15
Antimony	0.84
Tetrahydrofuran	109.95
Ethylene Glycol	0.26
Maleic Anhydride	3.39
Methylene Chloride	137.22
Methyl Alcohol	70.94
Methyl Ethyl Ketone	308.97
Methyl Isobutyl Ketone	132.45
Methacrylic Acid	5.04
Methyl Methacrylate	22.91
Organic Tin	0.69
Perchloroethylene	229.01
n-Hexane	0.68
n-Propyl Alcohol	146.63
Sodium Hydroxide	0.45
Toluene	101.99

- b. Toxic air pollutant emissions as measured by methods specified by the Division shall not exceed the respective limitations specified herein.
- c. Pursuant to 401 KAR 63:020, Section 3, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.
- d. In order to avoid classification as a major source as defined in 401 KAR 63:060, Section 1(4), plantwide emissions of no single hazardous air pollutant (HAP) as defined in 401 KAR 63:060, Section 1(3) shall exceed 9 tons per year; the combined total plantwide emissions of combined hazardous air pollutants shall not exceed 22.5 tons per year.

### ***Compliance Demonstration Method:***

- a. The above hazardous or toxic emission rate limits may be demonstrated by calculating the potential emissions from the facility for each chemical of concern with its associated calculations and input data due six months after issuance of the proposed permit.
- b. Existing air pollution control equipment shall continue to be operated and maintained in accordance with the manufacturer's specifications [401 KAR 63:021, Section 1].
- c. The permittee has source-wide emission limitations for each chemical listed in 2.a (401 KAR 63:021 is applicable to these chemicals, not 401 KAR 63:020). In order to show compliance with 401 KAR 63:020, Potentially hazardous matter or toxic substances, the

## **SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS**

permittee shall notify the Division of any increase of emissions of chemicals not regulated by 401 KAR 63:021, and source-wide modeling may be required.

- d. The compliance with the annual HAP emission limits shall be based on the rolling 12 month total. Within 30 days following the conclusion of each month, the rolling 12-month totals shall be calculated for the past 12 months.

### **3. Testing Requirements:**

Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using Reference Methods (or their equivalent) specified in 401 KAR 50:015 shall be conducted if required by the Division.

### **4. Specific Monitoring Requirements:**

- a. At the request of the Division, the permittee shall monitor specified air pollution control equipment parameters to demonstrate compliance with the manufacturer's or source's reported control efficiencies.
- b. At the request of the Division, the permittee shall stack test specified emission points to demonstrate compliance with reported toxic air pollutant emission rate limits.
- c. At the request of the Division, the permittee shall monitor specified processing or toxic air pollutant emission rates to verify compliance that calculated and modeled toxic air pollutant emission rate limits will not be exceeded.

### **5. Specific Recordkeeping Requirements:**

- a. The permittee shall maintain logs on specified monitoring requirements for a period of at least five (5) years from the date of the log entry or as otherwise specified by the Division.
- b. Usage rates, emission calculations, and model estimations for the respective emissions point shall be summarized as required by the Division.
- c. Specific records including usage and emissions of toxic air pollutants shall be made available for inspection at the request of the Division.

### **6. Specific Reporting Requirements:**

Pursuant to 401 KAR 52:020, *Permits*, Section 10, the permittee shall upon request submit information to the Division.

### **7. Specific Control Equipment Operating Conditions:**

Refer to Section B.7. for each respective production area and emission point.

### **Ambient Air Quality Standard**

In order to show compliance with 401 KAR 53:010, Ambient Air Quality Standards, with respect to sulfur dioxide, the permittee shall model to determine ambient air concentrations from the total facility hourly emission rate of sulfur dioxide. The concentration of sulfur dioxide in the ambient air, open to the public, shall be below the ambient air quality standards [as listed in Appendix A to 401 KAR 53:010]. Compliance documentation shall be provided to the Division within six months after issuance of the proposed permit.

**SECTION E – SOURCE CONTROL EQUIPMENT REQUIREMENTS**

- a. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
- b. Production areas B-03, B-06, B29, B-32, B-33, B38, B-39, B-46 and B-48 will have a thermal oxidizer (TO) as a control device or maintain emissions less than 500 lbs/yr per vent in accordance with the Consent Decree and its subsequent amendment (Attachments A and B of this permit). In accordance with Attachments A and B, the nine production areas will be subject to the following:

**1. Operating Limitations:**

1. Pursuant to the Consent Decree, Section VI, Environmentally Beneficial Projects, Subsection 17 (A)(2)(b), emissions from specific points in the nine areas listed above will be controlled using a thermal oxidizer (TO) (See Attachments A and B of this permit).
2. Pursuant to 401 KAR 50:055, Sections 1 and 2, or to preclude future major source status, any time the Thermal Oxidizer (IR-7401) is not in operation or the destruction efficiency is less than 95%, the production areas identified in Section E.b. shall cease operations.

***Compliance Demonstration Method:***

Refer to Subsections B.4, B.5, and B.7 for each respective production area and emission point.

**2. Emission Limitations:**

Pursuant to the Consent Decree, Section VI, Environmentally Beneficial Projects, Subsection 17 (A)(2)(b), emissions from the nine areas as specified in Attachment A of this permit shall be controlled to achieve a minimum destruction efficiency of 95% using a Thermal Oxidizer unless it is infeasible due to an event constituting a malfunction under 401 KAR 50:055. During the event, emissions shall be minimized to the extent practicable. During malfunction events, steps shall be taken consistent with 401 KAR 50:055 to expeditiously correct conditions causing the destruction efficiency to be less than 95%.

***Compliance Demonstration:***

The permittee shall demonstrate compliance with standards established in the pending Consent Decree according to the schedule described in the Consent Decree (Section VI, (17)(A)(2)(c) and (d)).

**3. Testing Requirements:**

1. As described in the Consent Decree, Section VI (17)(A)(2)(d), the permittee shall demonstrate compliance with Section VI (17)(A)(2)(b) no later than 180 days after the completion of the thermal oxidizer system.

**SECTION E – SOURCE CONTROL EQUIPMENT REQUIREMENTS**

2. Pursuant to 401 KAR 50:045, Section 1, performance testing in accordance with EPA Reference Method 25 or 25a (or equivalent), as referenced in 401 KAR 50:015, Section 1, shall be conducted as required by the Division. Refer to Section G(d)7.
3. Pursuant to Regulations 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing in accordance with EPA Reference Method 5 (or equivalent), as referenced in 401 KAR 50:015, Section 1, shall be conducted as required by the Division.

**4. Specific Monitoring Requirements:**

1. The permittee shall monitor the operating parameters at the specified frequency for each control device. Refer to the respective control device table in Subsection B.7 of each emission point. Refer to the table in Subsection E.7 below for the TO.
2. The permittee shall maintain weight records of process materials at emission points for which any process limit exists, or from which any criteria pollutant or regulated hazardous air pollutant (HAP) is emitted.
3. In accordance with 40 CFR Part 64.6(c), a thermocouple shall be used to continuously monitor the temperature of the combustion chamber of the thermal oxidizer (IR-7401) to ensure proper combustion chamber operation (40 CFR 64.4). The thermocouple shall be calibrated annually. Annual visual inspections shall be performed on the burner by trained personnel.
4. In accordance with 40 CFR Part 64.6(c), scrubber water flow rate, pH, and differential pressure for IR-7401 shall be continuously monitored by a magnetic flow meter, a pH probe, and by a differential pressure transducer upstream and downstream static pressure measurements, respectively. The flow meter shall be calibrated to  $\pm 5\%$  on an annual basis. The pH probe shall be calibrated to  $\pm 5\%$  quarterly. The pressure transducer shall be calibrated to  $\pm 5\%$  on an annual basis.
5. In accordance with 40 CFR Part 64.6(c), an updated Compliance Assurance Monitoring (CAM) plan shall be submitted within thirty (30) days of completion of the initial performance test for IR-7401 (40 CFR 64.4). To comply with 40 CFR 64.3, ranges of performance criteria specified in items E.4.3 and E.4.4 above shall be indicated based upon the results of the initial performance test in the updated CAM document.

**5. Specific Recordkeeping Requirements:**

1. The permittee shall maintain records of the operating parameters for each control device listed in Subsection B.7 of each emission point and in Subsection E.7 below.
2. Refer to Subsection B.4. (of each emission point), Specific Monitoring Requirements, and Subsection E.4, Specific Monitoring Requirements (above). Records of all parameters requiring monitoring shall be kept for a period of five (5) years from the date of the record.



**SECTION E – SOURCE CONTROL EQUIPMENT REQUIREMENTS****6. Specific Reporting Requirements:**

A summary report of operating parameters for the TO (see Subsection 7, below) shall be made to the Division on a semi-annual basis. The report shall include a description of each operating parameter and relevant operating data as well as a record of start up, shut down and malfunction events that occurred during that period.

**7. Specific Control Equipment Operating Conditions:**

<b>Emission Points</b>	<b>Control Equipment</b>	<b>Monitoring and Operating Parameters</b>	<b>Comments</b>
Refer to Subsection B.7 for respective emission points in each of the nine operating areas.	Thermal Oxidizer (IR-7401):  Scrubber:	Minimum operating temperature of the combustion chamber  scrubber liquid pH, scrubber differential pressure, liquid flow rate through the scrubber.	Deviations from operating parameters shall be documented and corrected as soon as is practicable.

**8. Alternative Operating Scenarios: None****9. Compliance Schedule:**

Refer to Attachments A and B of this permit.

**10. Compliance Certification Requirements:**

Refer to Section I.

## SECTION F – MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b (IV)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
  - a. Date, place as defined in this permit, and time of sampling or measurements;
  - b. Analyses performance dates;
  - c. Company or entity that performed analyses;
  - d. Analytical techniques or methods used;
  - e. Analyses results; and
  - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b(IV) 2 and 1a(8) of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
  - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
  - b. To access and copy any records required by the permit;
  - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction, which had not commenced operation or were not operational at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Section 1b (V)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

## SECTION F – MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

6. The semi-annual reports are due by January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
  - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
  - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and the owner or operator shall submit written notice upon request.
8. The owner or operator shall report emission related exceedances from permit requirements, including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above), to the Regional Office listed on the front of this permit within *30 days*. Other deviations from permit requirements shall *be included in the semiannual report required by Section F.6* [Section 1b (V) 3, 4. of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
  - a. Identification of the term or condition;
  - b. Compliance status of each term or condition of the permit;
  - c. Whether compliance was continuous or intermittent;
  - d. The method used for determining the compliance status for the source, currently and over the reporting period.
  - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
  - f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

## **SECTION F – MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS**

Division for Air Quality	U.S. EPA Region 4
Florence Regional Office	Air Enforcement Branch
8020 Veterans Memorial Drive,	Atlanta Federal Center
Suite 110	61 Forsyth St.
Florence, KY 41042	Atlanta, GA 30303-8960

Division for Air Quality  
Central Files  
803 Schenkel Lane  
Frankfort, KY 40601

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.
11. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.
12. Log and records required by this permit may be collected and maintained electronically.
13. Pursuant to 401 KAR 50:055, Section 1 and 40 CFR 63, Subpart A, the permittee shall develop a start-up, shutdown, malfunction plan for the thermal oxidizer (IR-7401). The start-up, shutdown, malfunction plan shall include identification of all emergency vents. A logbook shall be maintained identifying the emergency vent, duration of any emergency venting, flowrate during emergency venting, identification of pollutant emitted during emergency venting, and pollutant emission rate during emergency venting. The annual emission totals shall include any emergency emission rates.

**SECTION G – GENERAL PROVISIONS****(a) General Compliance Requirements**

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a, 3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020 Section 26].
2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a, 6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
  - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
  - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
  - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or compliance with the conditions of this permit [Section 1a, 7,8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].
6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this

## SECTION G – GENERAL PROVISIONS

- permit [Section 1a, 14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a, 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
  8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States [Section 1a, 15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
  9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a, 10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
  10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].
  11. This permit does not convey property rights or exclusive privileges [Section 1a, 9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
  12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Environmental and Public Protection or any other federal, state, or local agency.
  13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].
  14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].
  15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission points and incorporates all requirements of those existing permits into one single permit for this source.

## SECTION G – GENERAL PROVISIONS

16. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of issuance. Compliance with the conditions of a permit shall be considered compliance with:
  - a. Applicable requirements that are included and specifically identified in the permit and
  - b. Non-applicable requirements expressly identified in this permit.
17. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least thirty (30) days prior to the test.

### (b) Permit Expiration and Reapplication Requirements

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020 Section 8(2)].

### (c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

**SECTION G – GENERAL PROVISIONS****(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements****IR-7401 Thermal Oxidizer**

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, emission point IR-7401, in accordance with the terms and conditions of this permit.

1. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
2. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the Division's Frankfort Central Office, notification of the following:
  - a. The date when construction commenced.
  - b. The date of start-up of the affected facilities listed in this permit.
  - c. The date when the maximum production rate specified in the permit application was achieved.
3. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.
4. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the Cabinet.
5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration (*test*) on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. ***These performance tests must also be conducted in accordance with General Provisions G(d)7 of this permit and the permittee must furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such performance test***



**SECTION G – GENERAL PROVISIONS**

6. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.
  7. Pursuant to 401 KAR 50:045 Section 5 in order to demonstrate that a source is capable of complying with a standard at all times, a performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirement on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.
- (e) Acid Rain Program Requirements
1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.
- (f) Emergency Provisions
1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
    - a. An emergency occurred and the permittee can identify the cause of the emergency;
    - b. The permitted facility was at the time being properly operated;
    - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
    - d. Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
    - e. This requirement does not relieve the source of other local, state or federal notification requirements.
  2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].
  3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

## SECTION G – GENERAL PROVISIONS

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center  
P.O. Box 1515  
Lanham-Seabrook, MD 20703-1515.

2. If requested, submit additional relevant information to the Division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
  - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
  - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
  - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
  - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
  - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

**SECTION H – ALTERNATE OPERATING SCENARIOS**

Not Applicable

## **SECTION I – COMPLIANCE SCHEDULE**

Pursuant to the dates of entry, August 5, 2002, and August 17, 2004, for the Consent Decree and the First Amendment to Consent Decree, respectively, the permittee shall comply with all dates and requirements of the Consent Decree and its First Amendment issued by the United States District Court for the Eastern District of Pennsylvania between the USEPA and the Atofina, Chemicals, Incorporated, with respect to the Carrollton, Kentucky facility/plant. Refer to Attachments A and B.

**SECTION J – ACID RAIN**

Not Applicable

**SECTION J – ACID RAIN**

**SECTION J – ACID RAIN**